STORMWATER POLLUTION CONTROL PLAN

SCHNITZER STEEL PRODUCTS CO.
International Terminals
12005 N Burgard Road
Portland, Oregon 97203

March 2003

STORMWATER POLLUTION CONTROL PLAN
SCHNITZER STEEL PRODUCTS CO.
International Terminals

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

(figures follow text)

LIST OF APPENDICES

STORMWATER POLLUTION CONTROL PLAN
SCHNITZER STEEL PRODUCTS CO.
International Terminals

1.0 PLAN OVERVIEW

1.1 Introduction

This Stormwater Pollution Control (SWPC) Plan covers the operations of the Schnitzer Steel Products Co. (SSP) scrap metal recycling facility and International Terminals (IT) cargo facility located in the Burgard Industrial Park on the east bank of the Willamette River in north Portland, Oregon. This SWPC Plan was prepared in accordance with the requirements of the Oregon Department of Environmental Quality (DEQ) General Permit 1200-Z issued under the National Pollutant Discharge Elimination System (NPDES).

The U.S. Environmental Protection Agency's (EPA's) model permit for the scrap processing and recycling industry (U.S. EPA, 1993), and the DEQ's *Guidance Document for Preparation of the NPDES Storm Water Pollution Control Plan* (DEQ, 1997) were used as guidance for the preparation of this SWPC Plan.

This SWPC Plan describes the SSP-IT facility and its operations; identifies potential sources of stormwater pollution at the facility; and describes appropriate stormwater pollution control measures to reduce the potential for discharge of pollutants in stormwater run-off. In addition, the requirement for periodic review of this Plan is established.

1.2 General Facility Information

Following is a brief summary of general facility information related to the SSP-IT site:

Name of Facility:	Schnitzer Steel Products Co.
Owner:	Schnitzer Investment Corp.
Operator:	Schnitzer Steel Products Co.
Facility Address:	12005 N Burgard Road Portland, Oregon 97203

Mailing Address: P.O. Box 10047
Portland, Oregon 97296-0047

Facility Contacts:

Primary: Terry Glucoft, General Manager
(503) 286-6916
(503) 301-8360 (pager)

Alternate: Jim Jakubiak, Environmental Administrator
(503) 286-6976
(503) 527-2330 (pager)

Alternate: Mathew Cusma, Environmental Administrator
(503) 286-6944
(503) 903-7327 (pager)

Number of Employees: 85 (approximate - varies)

Operations Description: Ferrous scrap metal recovery and recycling. Scrap metals are delivered to the site from private and commercial parties by truck, rail, or barge, and are graded and sorted on-site. Scrap metals may be resized by shredding, shearing, or torching, and are ultimately shipped off site by truck, rail, barge, or ship for use as feed stock in domestic or foreign steel mills.

Standard Industrial Classification (SIC) Code: 5093, Scrap and Waste Materials

Site Drainage: The site is flat and has been graded to promote desired drainage patterns. The site is predominantly paved (asphalt) and stormwater drains by sheet flow to catch basins. Catch basins drain through subsurface piping to oil/water separators, which discharge either to an onsite process water management system, or off site to the Willamette River.

Stormwater Outfalls: 18 active outfalls discharge to the Willamette River.

1.3 Plan Objectives

In November 1990, the U.S. EPA adopted regulations (40 CFR Parts 122, 123, and 124) to control stormwater discharges from industrial facilities and certain municipalities through the NPDES permit program. The goal of the NPDES permit program is to improve the quality of surface waters by reducing the quantity of pollutants that are

potentially contained in stormwater run-off. In the State of Oregon, the Oregon DEQ has been granted the authority to administer the NPDES program.

The NPDES program specifies certain SIC categories [40 CFR §122.26(b)(14)(i-ix, xi)] for which discharge permits are required. Any facility falling within such a category, and from which stormwater leaves the site and enters surface waters through a "point source," must apply for a stormwater discharge permit under the NPDES system. In addition, facilities subject to NPDES permitting requirements, which include the SSP-IT facility, are required under the permit conditions to prepare and implement a Stormwater Pollution Control Plan. The SSP-IT facility is currently permitted to discharge stormwater to waters of the State under General Permit 1200-Z (included as Appendix A).

The objectives of this SWPC Plan are: 1) to identify potential sources of pollution at the facility which could adversely affect the quality of the stormwater discharges from the site, and 2) to describe appropriate pollution control measures and best management practices (BMPs) that will address the identified potential pollution sources and stormwater quality requirements for this facility. Proposed control measures include active potential source isolation and abatement, as well as support programs such as a periodic facility inspection program and detailed recordkeeping and reporting procedures. These measures will assist the compliance staff in maintaining compliance with the terms and conditions of General Permit 1200-Z.

1.4 SWPC Plan Organization

The SWPC Plan is organized into sections as follows:

Section 2.0: Stormwater Pollution Prevention Team

Personnel responsible for implementation of the SWPC Plan are identified and their specific responsibilities related to stormwater management are detailed.

Section 3.0: Facility Description

A detailed description of the site layout, facility operations, and potential sources of stormwater pollution is presented. A facility location map, a site plan showing drainage and other relevant features, an inventory of significant materials potentially exposed to stormwater, and a discussion of past spills are also included.

Section 4.0: Stormwater Pollution Controls

Stormwater management controls, and spill prevention and response procedures are detailed. Preventive maintenance measures, the employee training program, and periodic SWPC Plan review and amendment requirements are set forth.

Section 5.0: Stormwater Monitoring Program

The stormwater monitoring program, including sampling frequencies and protocols, analytical parameters, and recordkeeping and reporting requirements are presented.

Section 6.0: Implementation Schedule

The SWPC Plan implementation schedule and the discharge permit compliance schedule are detailed.

Section 7.0: Additional Permit Requirements

Oregon Administrative Rules (OAR) specific to the Willamette Basin are addressed.

Section 8.0: Plan Certification

Certification of the SWPC Plan by the owner/operator is presented.

2.0 STORMWATER POLLUTION PREVENTION TEAM

Stormwater pollution prevention depends on the awareness and cooperation of all SSP employees. However, the Stormwater Pollution Prevention Team is primarily responsible for developing, implementing, maintaining and revising this SWPC Plan; ensuring facility employees receive appropriate training in BMPs related to stormwater; conducting periodic site inspections to identify areas needing improvement; and ensuring that any identified deficiencies are corrected in a timely manner.

Team members and their specific duties and responsibilities related to stormwater management are detailed below. All members of the team are familiar with the management and operations of the SSP-IT facility.

Terry Glucoft, General Manager: Responsible for supervision and direction of all stormwater pollution prevention activities at the facility, including compliance with the General Permit and the SWPC Plan. Releases annual stormwater quality reports to the DEQ (July 15th each year), and approves necessary budget items and schedules for implementation of pollution control measures as required by the SWPC Plan.

Jim Jakubiak, Environmental Administrator: Responsible for overseeing day-to-day SWPC Plan implementation. Performs necessary recordkeeping and reporting activities. Assists with employee training related to stormwater pollution prevention. Conducts periodic site inspections and SWPC Plan effectiveness evaluations.

Mathew Cusma, Environmental Administrator: Responsible for overseeing day-to-day SWPC Plan implementation. Performs necessary recordkeeping and reporting activities. Assists with employee training related to stormwater pollution prevention. Conducts periodic site inspections and SWPC Plan effectiveness evaluations.

3.0 FACILITY DESCRIPTION

3.1 Facility Location and Description

The SSP-IT facility occupies approximately 70 acres of upland in the Rivergate industrial area between the Willamette River and North Burgard Road in Portland, Oregon. An additional approximately 50 acres of industrial land contiguous to the SSP-IT facility is owned by Schnitzer Investment Corp. (SIC), but is leased to other tenants, and is therefore not covered under this SWPC Plan. Access to the facility is provided primarily by an entrance roadway off of North Burgard Road near the intersection of North Terminal Road. The site can also be accessed using North Sever Road and Time-Oil Road, although these two entrances primarily serve neighboring facilities. A facility location map is provided as Figure 1.

The site is fenced on three sides, with the fourth side bounded by the river. The active portion of the property is bounded as follows:

- On the north, by a marine vessel berthing slip, Jefferson Smurfit Corporation, and Time Oil Co.
- On the east, by Northwest Pipe & Casing Co., Ryerson Steel, and Western Machine Works (tenant of SIC), and by North Burgard Road.
- On the south, by Terminal 4, a shipping terminal owned and operated by the Port of Portland.
- On the west, by the Willamette River.

Properties on the north and east sides of the site are not addressed in this SWPC Plan, except to the extent that their discharge may affect discharges from the outfalls associated with SSP-IT. SSP-IT is in continuing communication with these facilities regarding issues related to stormwater management.

The facility is predominantly paved (asphalt), and includes two large warehouses, three modular office buildings, a break/locker room, and two scale houses. A large automobile shredder, including associated magnetic separators and conveyors, is located at the southwest corner of the property, and a hydraulic guillotine shear is located in the north-central portion of the property.

3.2 Operations Description

Metal scrap consisting of a wide variety of recycled items including metal parts, automobiles, appliances, and steel fabrication remnants is delivered to the facility from private and commercial parties by truck, rail, or barge. The scrap is weighed, graded and sorted according to its type, size and thickness, and the transport is directed to the appropriate location at the facility for offloading.

Once received, the scrap material is either processed immediately (e.g., in the shredder or shear, depending on the grade of the material), or is staged for future processing or offsite transfer. Materials processed in the shredder include automobiles, appliances, baled and loose tin and sheet metal, and other relatively thin metals. The shredder reduces the size of the scrap and separates the ferrous metals from non-ferrous metals and nonmetallics (Automobile Shredder Residue [ASR]) using a variety of means including magnetic and gravity separators. The shear is used to re-size steel plate, heavy-walled pipe, cable, and other relatively thick scrap, using a hydraulic guillotine. Items not amenable to processing in either the shredder or the shear may be cut by portable shears or by torch, or transferred offsite as-is.

Processed and unprocessed scrap, and some processing residues (e.g., ASR, nonmetallic components, etc.), are temporarily staged at the facility in outdoor piles until offsite shipment is arranged. The processed and sorted scrap is then loaded into trucks, rail cars, cargo containers, barges, or ships for shipment off site to domestic and foreign steel mills, where the material is melted and formed into new steel for manufacturing of new products. The ASR is loaded on trucks for shipment offsite for use as an approved alternate daily cover material at appropriate Subtitle D landfills.

In addition to these primary facility operations, several support operations, including weigh-scales, vehicle and equipment maintenance, steel remnant storage and sales, bulk material (e.g., pig iron, ferro-manganese, silica-manganese, etc.) storage and sales, and truck washing, are conducted at the facility. Materials related to these support operations that have the potential to adversely impact stormwater, including petroleum products, coolants (glycol), and waste fluids (oils and coolant), are stored either indoors or in a covered outdoor area provided with secondary containment. Steel, pig iron, manganese, and similar bulk materials are typically stored outdoors in paved areas divided by steel retaining walls.

3.3 Site Map

Pursuant to the requirements of NPDES General Permit 1200-Z, a site map of the facility is provided with this SWPC Plan. The site map shows the following features:

- Drainage patterns.

- Drainage and discharge structures.
- Catch basins.
- Sumps.
- Storm sewer piping.
- Outfalls.
- An outline of the drainage area for each stormwater outfall.
- Paved areas and buildings within each drainage area.
- Areas used for outdoor manufacturing, treatment, storage, and/or disposal of significant materials (no disposal occurs at the site).
- Existing structural control measures for reducing pollutants in stormwater run-off.
  - Sand filters.
  - Oil/water separators.
  - Containment booms.
  - Grease traps.
- Material loading and access areas.
- Hazardous waste treatment, storage and disposal facilities (NONE).
- Locations of wells, including waste injection wells, seepage pits, dry wells, etc. (only one well, a cooling water supply well, exists on-site).
- Locations of springs, wetlands, and other surface water bodies.
  - Willamette River.
  - Berthing Slip (appendage of Willamette River).

3.4 Stormwater Drainage

Stormwater run-off at the SSP-IT facility is routed to 18 active outfalls which discharge into the Willamette River. Each of the outfalls serves a specific drainage area within the facility boundaries, as shown on the site map provided with this SWPC Plan. In addition, there are two remnant outfalls at the site related to historic operations, that no longer convey stormwater. Table 1 presents a summary of each of the outfalls at the facility, the activities conducted in the associated drainage areas, and the significant materials present.

Table 1:	Site Drainage Summary		
OUTFALL ID [1]	DRAINAGE AREA ACTIVITIES	SIGNIFICANT MATERIALS	POTENTIAL POLLUTANTS
1	Entrance roadway, remnant steel storage, vehicle parking and traffic, offices	Parked vehicles, ferrous and non-ferrous materials	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
2	Shredder residue (ASR) staging, heavy equipment parking, truck loading, crushed automobile storage	Stored equipment, crushed automobiles, ASR	Oil and grease, petroleum hydrocarbons, PCBs, heavy metals (dust)
3A, 3B	Steel storage, bulk material (e.g., pig iron) storage	Steel and other ferrous materials	Heavy metals (dust)
4A, 4B	Steel storage, bulk material (e.g., pig iron) storage	Steel and other ferrous materials	Heavy metals (dust)
5A, 5B	Steel storage, bulk material (e.g., pig iron) storage, vehicle weighing and traffic	Steel and other ferrous materials	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
6A, 7	Ship slip and dock activities, scrap, steel and metal product loading and unloading	Heavy equipment, rail cranes, railroad cars and engines, scrap stockpiles	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
10	Ship slip and dock activities, scrap, steel and metal product loading and unloading	Heavy equipment, rail cranes, railroad cars and engines, scrap stockpiles	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
13	Hydraulic shear, dock activities, scrap, steel and metal product loading and unloading	Shear, heavy equipment, railroad cars and engines, scrap stockpiles	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
14	Ferrous scrap storage, vehicle and rail road traffic, vehicle parking, offices	Parked vehicles, ferrous scrap	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
15	Ship slip and dock activities, scrap, steel and metal product loading and unloading	Heavy equipment, rail cranes, railroad cars and engines, scrap stockpiles	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
16	Vehicle parking, equipment storage, non-ferrous scrap receiving and storage, petroleum secondary containment area (under roof)	Parked vehicles, stored equipment, potential spillage	Oil and grease, petroleum hydrocarbons, antifreeze, heavy metals (dust)
18	This outfall primarily serves NW Pipe and adjacent properties (permitted separately). A small fuel island at the east end of the property (operated by SSP) is also served by this outfall.	Vehicle traffic, potential spillage	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
19	Vehicle traffic, rail car storage	None	Dust, roadway accumulations
20	Rail car storage, scrap storage	Ferrous scrap	Heavy metals (dust), oil and grease

[1] - Outfall locations are shown on the Site Map provided with this SWPC Plan.
- Former Outfalls 8, 9, and 12 have been abandoned. The discharge pipes have been cut and grouted.
- Former Outfalls 11 and 17 are remnants of an historical shipyard. They are no longer connected to any catch basins at the site, and do not discharge stormwater.

In addition to the facility drainage areas served by the outfalls identified in Table 1, precipitation incident in five drainage areas is contained and used in the scrap processing operations at the site. These areas are described below:

- The area immediately surrounding the shredder (approximately three acres) is paved and provided with catch basins piped to a closed-loop collection and

treatment system. In addition to shredder operations, this area is used for staging of unprocessed scrap items, processed scrap, and ASR. Water collected in this area is treated in a 90,000-gallon clarifier through polymer and flocculent addition, and is then transferred to a 270,000-gallon storage tank. Stored water is supplied to the shredder, as needed, to facilitate the shredding of metal materials. The water added to the shredder either evaporates, or is discharged with the shredded material, and drains back into the area catch basins to be recycled (i.e., it is a closed loop system). Because stormwater is not capable of providing sufficient water for this purpose during most of the year, water also may be drawn from a nearby supply well, as well as from the city water supply, to fulfill the need for shredder process water.

- An approximate 400 foot by 60 foot concrete slab (approximately $^1/_2$ acre) located along the southern property boundary near the shredder drains through two large oil/water separators. This slab is used for storage of motor blocks, machine turnings, and other potentially oily scrap. Stormwater from this slab is pumped from the oil/water separator to the shredder for use as process water make-up.
- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system. This area is used primarily for storage of scrap electrical cable.
- The electrical transformer substation serving the shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, as necessary. This water is pumped into the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater. The stormwater is pumped from the sump through two large oil/water separators (located near the dock lunchroom), and then flows to the shredder process water recycling system for re-use.

3.5 Significant Materials and Potential Stormwater Pollutants

The NPDES General Permit 1200-Z requires the SWPC Plan to include a description of "significant materials" at the site which may be exposed to stormwater. For the purposes of the permit, "significant materials" are defined as including, but not limited to, "raw materials; fuels; materials such as solvents, detergents and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag and sludge that have the potential to be released with storm water discharges."

Significant materials that might be expected at the SSP-IT facility include the following:

- Ferrous metal scrap.
- Non-ferrous metal scrap.
- Automobile shredder residue (ASR - shredded plastic, fabric, carpet and rubber residuals from the recycling process).
- Bulk materials (pig iron, manganese, etc.).
- Petroleum products (new and used).
- Trash and debris.
- Steel and other metal products.

Both new and used vehicle maintenance fluids (e.g., oil, hydraulic fluid, antifreeze, etc.) are stored in drums and other closed containers, either inside an enclosed building, or within a covered secondary containment area. Potential contact of these materials with stormwater would be limited to leaks from vehicles or equipment, or potential spills.

As a result of the presence of these significant materials, and as summarized above in Table 1, the following potential stormwater pollutants have been identified:

- Petroleum hydrocarbons.
  - Oil and grease.
  - Hydraulic fluid.
  - Fuels (diesel, gasoline, etc.).
- Antifreeze (glycol).
- Heavy metals (dust).
- Dust/soils.

4.0 STORMWATER POLLUTION CONTROLS

This section describes the stormwater pollution controls that will be implemented at the facility to reduce or eliminate the potential for pollutants to impact stormwater run-off from the site. The following categories of pollution controls are addressed, as required by NPDES General Permit 1200-Z:

- Stormwater Best Management Practices.
  - Containment.
  - Oil and Grease.
  - Waste Chemicals and Material Disposal.
  - Erosion and Sediment Control.
  - Debris Control.
  - Stormwater Diversion.

  - Covering Activities.
  - Housekeeping.
  - Other Operational Controls. (in addition to those required by permit)
- Spill Prevention and Response.
- Preventive Maintenance.
- Employee Education.
- Recordkeeping and Internal Reporting Procedures.
- Plan Review and Revision Requirements.

4.1 Stormwater Management

The potential for stormwater pollution occurs when incident rainwater or stormwater run-off comes into contact with pollutants on exposed surfaces. Pollutants may dissolve, become suspended, or float on the surface of the water, or may attach (e.g., via absorption or adsorption) to soil particulates suspended in the stormwater. Stormwater quality at the SSP-IT facility has the potential to be impacted as a result of exposed or leaking vehicles or equipment, stockpiled scrap metals and bulk materials, staged shredder residues, and exposed pavement impacted by vehicle traffic and parking.

The vast majority of the SSP-IT property (approximately 90%) is paved (asphalt or concrete), and is graded to drain to catch basins. Most of the site's catch basins are designed as grease traps (i.e., with an inverted drain pipe). Stormwater run-off drains via sheet flow to the catch basins, the majority of which are piped to oil/water separators and/or settling cascades, and ultimately to the outfalls serving the site. There are a total of 18 active stormwater outfalls serving the site, which discharge to the Willamette River either directly, or via the berthing slip. As indicated in Table 1, above, two former outfalls (Outfalls 11 and 17) are remnants of a historical ship yard, and are not currently connected to any catch basins. Three other former outfalls (Outfalls 8, 9, and 12) have been formally abandoned and grouted closed.

In addition, Outfall 18 primarily serves facilities east of the SSP-IT facility, at least one of which uses the outfall for permitted discharge of non-contact process water. SSP operates a small fuel island in an area near the east property boundary that is also served by this outfall. However, stormwater in the fuel island area drains through grease-trap catch basins and through a three-stage oil/water separator prior to joining other flows directed to the outfall.

As described in detail in Section 3.4, and again in Section 4.1.1 below, precipitation incident in five facility drainage areas is contained and used in the scrap processing operations at the site. These areas include the area immediately surrounding the shredder (approximately three acres), a concrete slab at the south property boundary

(approximately $^1/_2$ acre), a small area south of the shear (approximately $^1/_2$ acre), the concrete slab underlying the shear, and a small secondary containment system for the shredder electrical transformer substation.

SSP has implemented a variety of stormwater pollution controls, BMPs, and structural modifications to minimize the potential for contamination of stormwater run-off from the site. Stormwater pollution controls can generally be categorized as either source controls or structural controls. Source controls are practices that reduce or eliminate the potential for contact of stormwater with pollutant sources, or eliminate non-stormwater discharges (e.g., spills or leaks). Structural controls are in-pipe or end-of-pipe treatment systems and discharge volume reduction devices. Some controls, such as containment structures designed to isolate potential pollutant sources, may be classified in either category.

In general, source controls are given the highest priority for implementation under this SWPC Plan. SSP believes that control of potential pollution sources is a more proactive approach to stormwater pollution prevention, minimizing the need for often expensive end-of-pipe treatment technologies. However, due to the nature of scrap recycling operations and existing conditions, structural controls have also played an important role in stormwater pollution prevention at the facility, and will continue to be evaluated for implementation.

Table 2 provides a summary of the existing and proposed stormwater pollution control measures relevant to the SSP-IT facility. As indicated in the table, existing control measures are continuously undergoing evaluation for applicability and effectiveness, and some have been designated for improvement. The following subsections describe the control measures in greater detail.

Table 2: **Stormwater Pollution Controls and BMPs**

4.1.1 CONTAINMENT

As noted above, containment measures, which involve isolating potential pollution sources from contact with stormwater, may be classified as both a source control and a structural control. Containment measures play an important part in stormwater pollution control at the SSP-IT facility, and are generally considered to be the preferred mechanism for reducing or eliminating adversely impacted stormwater discharges. The following containment measures have been implemented at the facility to minimize the exposure of significant materials to stormwater:

- To the extent possible, vehicle and equipment maintenance activities are conducted inside a fully enclosed, concrete floored building. The building floor slopes toward low spots in the floor that serve as blind liquid collection points. Drains inside the building that connect to the site's stormwater sewer system are not located in areas used for maintenance activities. Vehicle maintenance outside of the building is conducted only in the event of an emergency, such as the failure of hydraulic systems, and is limited to activities necessary to ensure capture and containment of fluids and other significant materials. Equipment maintenance outside of the building is limited to items that are not mobile or portable.
- New and used motor oil, hydraulic fluid, antifreeze, etc. are stored in drums and other sealed containers under roof in a concrete secondary containment unit. Containers are elevated above the floor of the containment structure to facilitate detection and collection of spilled and accumulated liquids. Small quantities of these items may also be stored inside of the vehicle maintenance building, elevated on pallets or placed in polyethylene or steel drip pans.
- The paved area immediately surrounding the automobile shredder (approximately three acres) is sloped toward catch basins, which are piped to a nearby storage tank. Water collected in the tank is treated and supplied to the shredder, as needed, as a coolant/lubricant to facilitate the shredding of metal materials. The water added to the shredder either evaporates in the process, or is discharged with the shredded material, draining back into the catch basins to be again recycled. This area is used for stockpiling of shredded ferrous and non-ferrous metals and ASR prior to offsite shipment.
- An approximate 400 foot by 60 foot concrete slab (approximately $^1/_2$ acre) located along the southern property boundary near the shredder drains through two large oil/water separators. This slab is used for storage of motor blocks, machine turnings, and other potentially oily scrap. Stormwater from this slab is pumped from the oil/water separator to the shredder for use as process water make-up.
- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system. This area is used primarily for storage of scrap electrical cable.

- The electrical transformer substation serving the shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, as necessary. This water is pumped into the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater. The stormwater is pumped from the sump through two large oil/water separators (located near the dock lunchroom), and then flows to the shredder process water recycling system for re-use.
- The electrical transformer substation serving the shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, if necessary.
- Drip pans are placed beneath vehicles and equipment that show evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).

4.1.2 OIL AND GREASE

Oil and grease separation is a structural control that is in extensive use at the SSP-IT facility. The following oil and grease separation control measures have been implemented for stormwater at the site.

- There are four oil/water separators in existence at the facility. Oil/water separators are passive, flow-through, multi-step chambers designed to separate floating product and settleable solids from the discharge stream. The oil/water separators vary in size and complexity, and are installed in discharge lines serving the following areas:
  - A coalescing plate oil/water separator is installed at Outfall 1. The drainage area served by this unit includes the site access road, the truck scales, remnant steel storage, and office parking. In addition to a sediment-retaining weir and oil-retaining baffle, this unit includes a bank of coalescing media plates designed to facilitate the removal of oils from the discharge stream.
  - A Vortechs Stormwater Treatment System, designed to remove floating product (oil and grease), as well as settleable solids, is installed at Outfall 2, immediately upstream of a sand filter. This outfall serves the drainage area immediately north of the shredder, in which bulk materials, crushed automobiles, shredder residues, and other significant materials are stored. Shredder process water, which is recycled through a treatment system for re-use, is not discharged through this unit.
  - One eight-stage oil/water separator is installed at Outfall 13. The drainage area served by this unit, located on the dock immediately east of the shear, is used for

staging of scrap metals which must be torch cut or otherwise dismantled either prior to, or in lieu of, being resized in the shear.

  - One eight-stage oil/water separator is installed at Outfall 15. The drainage area served by this unit, located on the dock east of the shear, is used for staging of scrap metals which must be torch cut or otherwise dismantled either prior to, or in lieu of, being resized in the shear.

- A single cartridge Stormwater Management StormFilter has been installed at the catch basin nearest the bay door opening into the maintenance shop in Building B. The device was installed in order to address the increased risk of potential oil spills or leakage at this location.
- Each of the five sand filters installed at the facility include pre-chambers equipped with sediment weirs and oil baffles to minimize oil-fouling of the filtration media. The sand filters are described in detail in Section 4.1.4.
- Approximately 80% of the storm drain catch basins at the SSP-IT property are designed with inverted outflow pipes to trap oil and grease in the basin. The outflow pipes discharge water collected in the basin from below the water surface, essentially trapping oil, grease and other floating materials in the basin. These catch basins are located throughout the site, but are concentrated in areas of storage and operations (e.g., most of the non-grease trap basins are located along access roads and in parking areas).
- Passive oil skimmers (absorbent pillows) are placed in all catch basins throughout the operations areas and high traffic areas of the site. These pillows are designed to absorb petroleum products floating on the surface of the collected water, thereby reducing the amount of oil that is free-floating, and that might flow out of the basin to the oil/water separators and the outfalls.
- Drip pans are placed beneath vehicles and equipment that show evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).
- Small spills or releases of oil or other petroleum products are cleaned up using dry absorbents which are swept up and properly disposed upon completion of clean-up. Soils that may be impacted by small spills are removed and properly disposed. Detergents and solvents are not used to clean up spills.
- Oil/water separators are inspected on a monthly basis for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned by a licensed private wastewater contractor, as necessary.
- Catch basin skimmers are inspected at least monthly, and are replaced as necessary. Oil-soaked absorbents are properly disposed.

Numerous additional oil and grease separation control measures are in use at the facility related to the shredder process water system and other non-stormwater related activities that are not described here.

4.1.3 WASTE CHEMICALS AND MATERIAL DISPOSAL

Management controls related to waste chemicals and material disposal include both source control and structural control options. The following management practices related to waste chemical and material disposal have been implemented at the site:

- SSP's stringent scrap metal acceptance policy (included as Appendix B) requires that waste materials be removed from discarded items prior to acceptance.
  - Appliances must have all electrical components removed.
  - Vehicles must be drained of all fluids, including fuel, radiator and air-conditioning coolants, and lubricants.
  - Lead acid batteries and mercury switches must be removed from all vehicles or equipment.
  - Compressors from appliances must be removed, drained, and cut in half.
  - Aerosol cans must be empty, and either punctured or crushed.
  - Drums, barrels, and other containers must be thoroughly cleaned and cut open for inspection.
- Waste coolants and lubricants generated by SSP are accumulated in above ground storage tanks or drums in a covered, concrete secondary containment structure prior to periodic offsite shipment for recycling.
- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.
- Solvents and degreasers used in self-contained parts cleaners are periodically exchanged by an outside contractor, and waste solvents are transported offsite for recycling.
- Although uncommon, waste items delivered improperly to SSP (e.g., lead-acid batteries) are temporarily stored under cover in the maintenance building pending offsite shipment for recycling or proper disposal.

4.1.4 EROSION AND SEDIMENT CONTROL

The majority of the SSP-IT property (approximately 90%) is paved. Additional portions of the site are scheduled to be paved in the future. Currently unpaved areas primarily consist of narrow strips of property along the banks of the Willamette River and around the head of the ship berthing slip. Very narrow strips of unpaved area also exist along the network of railroad tracks at the site. The following measures have been implemented at the site to control sediment and erosion:

- Five sand filters have been installed to control suspended sediment discharge with stormwater along the river. These sand filters serve Outfalls 2, 3, 4, 5, and 6/7. Each sand filter is equipped with a high flow bypass to prevent the sand filter from constricting high flow to the point of flooding the yard. As shown on the attached site map, outfalls designated with an "A" discharge treated flow, and outfalls designated with a "B" discharge the high flow bypass. Exceptions to these designations occur at Outfall 2, where a single outfall discharges both treated and bypass stormwater, and at Outfall 7, which discharges bypass stormwater from Basin 6.
- All oil/water separators at the facility are equipped with either sediment weirs or elevated discharge pipes to trap sediments in a chamber of the unit.
- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week.
- Vegetation (primarily indigenous grasses and blackberry) has been allowed to take root in unpaved areas along the water banks to reduce erosion. In addition, rip-rap has been historically emplaced on the slopes of the river bank which may be prone to erosion due to wave action.
- Straw bales, drain filters, or similar mechanisms are used to minimize the influx of sediment into stormwater catch basins and into the river, where appropriate.
- Facility-wide inspections are conducted at least once per month to identify areas of erosion, damaged pavement, and areas requiring sweeping.
- In areas where bulk material storage is conducted, drain covers may be emplaced during storage of materials which might contribute to suspended solids in stormwater run-off (e.g., fine particulates or dusty materials), as necessary.

4.1.5 DEBRIS CONTROL

Considering the nature of facility operations, debris build-up is of significant concern. Although scrap recycling operations requires the accumulation of both processed and unprocessed scrap metals in stockpiles, SSP personnel strive to ensure that only designated areas are used for these stockpiles, and that all roadways, railways, parking areas, work areas, and buildings remain free of accumulated debris. The following measures have been implemented at the facility to control debris:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week.
- Accessible areas are swept using a magnetic collector on an average of once per month.
- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and offloading.

- Two trailer sweep-off areas are designated along the access road to the facility to allow suppliers to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.
- Facility-wide inspections are conducted at least once per month to identify areas of debris build-up that need cleanup.

4.1.6 STORMWATER DIVERSION

Stormwater diversion controls have been implemented at the site primarily as a means of ensuring that stormwater drainage in areas that may be prone to adverse impact is either recycled, or is directed through treatment systems (e.g., oil/water separators and sand filters) prior to discharge. The following stormwater diversion measures have been implemented at the facility:

- The area immediately surrounding the shredder (approximately three acres) is paved and provided with catch basins piped to a closed-loop collection and treatment system. This water is used for cooling and dust suppression in the shredder.
- An approximate 400 foot by 60 foot concrete slab (approximately $^1/_2$ acre) located along the southern property boundary near the shredder drains through two large oil/water separators. Stormwater from this slab is pumped from the oil/water separator to the shredder for use as process water make-up.
- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater. The stormwater is pumped from the sump through two large oil/water separators (located near the dock lunchroom), and then flows to the shredder process water recycling system for re-use.

4.1.7 COVERING ACTIVITIES

Activities and storage areas that are most prone to potentially adversely affecting stormwater quality are maintained under cover, either inside of the maintenance building, or in a roofed concrete secondary containment structure. These areas are further discussed in Section 4.1.1, above.

In addition, SSP has constructed a secondary separation system for the ASR that is completely enclosed within Building B. ASR from the shredder is loaded onto dump trucks and transferred to a large bin inside the building. A front-end loader then takes the ASR from the bin and feeds it into a hopper that delivers the material to shaker screens, separation equipment, and finally picking tables, to remove as much non-

magnetic, non-ferrous metal as practical from the ASR. After passing through this system, the ASR is deposited in two large, elevated, bottom dump hoppers, that ultimately discharge the material into trucks destined for the landfill. This system results in a substantial decrease in the amount of significant materials which would be exposed to incident precipitation or stormwater run-off at the site.

Covered storage and operations areas are inspected monthly to ensure that any significant materials stored or used in the areas are being properly contained and managed.

4.1.8 HOUSEKEEPING

Maintaining a clean and orderly job site is instrumental for controlling potential stormwater pollutants, as well as for ensuring a safe working environment. The following management practices related to good housekeeping are followed at the SSP-IT facility:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week, and are swept using a magnetic collector on an average of once per month. Minimal amounts of water are used in the paved areas for dust control during dry periods.
- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and offloading.
- Two trailer sweep-off areas are designated along the access road to the facility to allow suppliers to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.
- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.
- Drip pans are placed beneath vehicles and equipment that exhibit evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).
- Stencils or other signage noting that dumping of foreign materials is prohibited are provided at catch basins where problems may occur.
- Facility-wide inspections are conducted at least once per month to identify areas needing cleanup and general policing.

4.1.9 OTHER OPERATIONAL CONTROLS

Significant operational controls are in place at the facility that exceed the specific requirements of the NPDES General Permit. These controls include the following:

- Periodic community outreach events are conducted in order to elevate the awareness of scrap suppliers toward SSP's stringent scrap acceptance policies. These events include signage posted at SSP-IT, policy and guideline mailings, and visits to supplier facilities by SSP environmental and/or management personnel.
- An inbound material inspection program has been developed to minimize the potential for receipt of unacceptable materials. The program includes the following:
  - Passage of every load of scrap entering the facility through a radiation detector.
  - Visual screening of every load of scrap received at the facility by scale-house personnel.
  - Visual screening of all scrap materials offloaded from transport vehicles by equipment operators and ground personnel in the yard.
  - Periodic thorough inspections of offloaded scrap from specific suppliers (on a rotating basis) by environmental or management personnel.
  - In the event that unacceptable or suspect materials are detected as a result of this program, the materials may be segregated from the scrap for proper disposal, may be returned to the supplier, or the entire load may be rejected. In any case, the supplier will be contacted and informed of the rejection, and the scrap acceptance policy will be reiterated.

4.2 Spill Prevention and Response

SSP-IT maintains a written Spill Prevention, Control, and Countermeasures (SPCC) Plan, which details the specific procedures to be followed in the event of a spill or release of oil, fuel, or other petroleum product a the facility. A copy of the SPCC Plan is provided as Appendix C.

Potential causes of spills or leaks of significant materials at the facility could include container failures, equipment or vehicle leaks, and spills of shredded materials, ASR, and/or chemicals during handling or transport operations. Frequent inspections of storage, maintenance and processing areas, and inspections of vehicles and equipment are intended to identify potential problems areas, and to allow the timely detection of any spillage prior to adversely impacting the storm sewer system, or reaching surface waters.

Spill response equipment, including containment and absorbent booms, absorbent socks and pads, and related safety equipment, are maintained on-hand in spill kits placed in strategic locations throughout the site.

Spill prevention and response provisions include the following:

- Operations personnel are equipped with radios and/or cellular phones to provide immediate communication in the event of an accidental release.
- Storm drain covers are available to block catch basins in the event of a spill which has the potential to reach a drain.
- Spill kits containing absorbent pads and booms, and other cleanup and safety supplies are placed in strategic locations throughout the site.
- An adequate supply of absorbent and containment booms and similar items are available to contain and clean up any spilled materials. Spilled materials are cleaned up using dry methods whenever possible.
- Containers of liquids, including oils and other petroleum products, are stored within secondary containment, or are placed on spill containment pallets.
- Drip pans are placed beneath vehicles and equipment that exhibit evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).
- Containers are periodically inspected to ensure that they are closed, properly labeled, and in good condition.

4.3 Preventive Maintenance

Preventive maintenance involves the regular inspection, cleaning and mechanical maintenance of vehicles, equipment, and stormwater management structures, as well as other activities designed to reduce the likelihood of spills and leaks. The following preventive maintenance provisions have been implemented at the SSP-IT facility:

- A vehicle and equipment inspection and maintenance program has been developed which includes the following:
  - Regularly scheduled vehicle and equipment inspections focused on fluid leaks.
  - Service and inspection checklists specific to each type of vehicle and major item of equipment.
  - Maintenance logs detailing services performed on each vehicle and major item of equipment.
  - Training requirements for personnel involved in vehicle and equipment operations, inspection, and maintenance.
- Major items of equipment that are stored or used outdoors are cleaned on a regular basis to remove accumulated oil and grease from exterior surfaces (except as necessary for proper operation).
- Vehicle and equipment maintenance is conducted within the enclosed maintenance building, to the extent possible.

During monthly site inspections, the inspector (a designated member of the Stormwater Pollution Prevention Team [refer to Section 2.0]) will determine whether potential pollution sources are being adequately controlled, and whether pollution controls specified in the SWPC Plan have been properly and effectively implemented. Inspections will be documented using a comprehensive Site Inspection Checklist (included as Appendix D), which will include the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented. The facility drainage areas described in Table 1 will be included in the inspections, and the following items will be inspected, at a minimum:

- Containment structures, booms and berms, on a monthly basis, to ensure that they are intact and functional.
- Discharges from outfalls, on at least a monthly basis when occurring, to inspect for color, foam and sheen.
- Facility-wide inspections, at least once per month, to identify areas of erosion, damaged pavement, and areas requiring sweeping.
- Oil/water separators, on a monthly basis, for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned by a licensed private wastewater contractor, as necessary.
- Catch basin skimmers, at least monthly. Spent absorbents are replaced as necessary, and are properly disposed.

4.4 Employee Education

SSP has developed a comprehensive employee training program which includes practices and procedures related to stormwater management, pollution prevention, and spill control and countermeasures. Operations personnel begin their training by viewing a stormwater pollution prevention video prepared and distributed through the Institute of Scrap Recycling Industries (ISRI). Additional training is provided by the facility's environmental and safety staff, and includes the following:

- Information on the acceptability and unacceptability of certain types of scrap and other materials.
- Proper procedures for containing or otherwise isolating unacceptable materials and spills.
- Locations of spill response kits and other emergency equipment.
- Proper notification procedures.

Training is documented using Training Record forms (included as Appendix E). Training Records are maintained for each employee for a minimum of five years, and are retained at the SSP Health and Safety office in the employee personnel files.

In addition to employee training, SSP-IT strives to educate its scrap suppliers regarding scrap acceptability, both to prevent improper receipt of unacceptable materials, and to protect site stormwater from potential pollution sources. SSP-IT has a written scrap acceptance policy (included as Appendix B) which is distributed to suppliers in periodic mailings and in frequent hand-outs when entering or exiting the facility. The policy identifies specific items that cannot be accepted, as well as particular preparation requirements for other items. The policy is periodically reviewed and updated, and updates are communicated promptly to SSP's suppliers.

4.5 Recordkeeping and Internal Reporting Procedures

Records of site inspections are maintained using a comprehensive Site Inspection Checklist (included as Appendix D). This checklist provides a means for documenting the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented.

Site Inspection Checklists, stormwater monitoring results, records of spills and associated corrective action, and preventive maintenance records will be retained on file by SSP for a minimum of five years.

Stormwater monitoring results will be tabulated and submitted in a report to DEQ's Northwest Region by July 15th of each year. Other relevant records will be made available to authorized representatives of the DEQ upon request.

4.6 Plan Review and Revision Requirements

Based on the results of monthly site inspections detailed previously, the SSP-IT facility will periodically assess the overall effectiveness of this SWPC Plan, and will implement modifications or improvements to the plan, as appropriate. The periodic plan assessment will include the following:

- The site map will be modified or updated to reflect current facility conditions.
- Identified potential stormwater pollution sources will be visually inspected to determine if they are being adequately and effectively controlled.
- Pollution control structures will be evaluated to determine if they have been properly installed, and to assess their effectiveness.
- Pollution control measures will be evaluated to determine if they have been properly implemented, and to assess their effectiveness.
- Spill response equipment and supplies will be inspected to ensure proper operation and adequate supply.

In addition, the SWPC Plan will be reviewed within 60 days of receipt of any sampling results demonstrating that effluent benchmarks specified in the NPDES General Permit have not been met. The purpose of this review will be to determine if the SWPC Plan has been properly and effectively implemented, and to identify any additional technically feasible and economical site controls that may be implemented to further improve the quality of stormwater discharges. Based on this review, the SWPC Plan may be revised, as necessary, and the revised plan will be submitted to the DEQ within 14 days of completion.

5.0 MONITORING PROGRAM

In compliance with the NPDES General Permit, stormwater samples will be collected from the active discharge outfalls serving the facility twice each year. One of the sampling events will be conducted during the first month of the Fall during which stormwater discharge occurs. The second event will be conducted no less than 60 days after the first event.

Monitoring for the purposes of this SWPC Plan will not include Outfalls 11 and 17, since these outfalls are not currently connected to any catch basins and do not typically discharge stormwater. Also, Outfall 18 will not be included for monitoring under this plan, since it is sampled monthly by a neighboring facility as part of a separate NPDES Individual Permit.

SSP may elect to reduce the number of actual monitoring points at the facility based on site operations and specific activities conducted within the drainage areas, in accordance with NPDES General Permit Condition B.1(c). Discharges from multiple outfalls serving drainage areas representing similar activities, and where discharges are expected to be of similar composition, may be represented by a single monitoring point. In addition, outfalls serving areas with no exposure of stormwater to industrial activities will not require monitoring.

Visual monitoring at all outfalls and at areas of potential pollutant contact is required during at least one storm event per month during the rainy season (approximately October through April) that results in at least one hour of continuous discharge. In addition, visual monitoring at each outfall is required at least twice during the dry season (approximately May through September). These visual monitoring requirements will be met through monthly site inspections conducted as described in Section 4.0.

Collected stormwater samples must be representative of the discharge from the facility, and will be analyzed in accordance with the approved methods specified in 40 CFR 136.

Stormwater samples collected during the sampling events will be delivered to a laboratory for analysis for the parameters required by the NPDES General Permit, as summarized in Table 3.

Table 3: Stormwater Sample Analytical Requirements

PARAMETER	ANALYTICAL METHOD	EFFLUENT BENCHMARK
Total Copper	EPA 6010B	0.1 mg/l
Total lead	EPA 7421	0.4 mg/l
Total Zinc	EPA 6010B	0.6 mg/l
pH	EPA 150.1	5.5 to 9.0 s.u.
Total Suspended Solids (TSS)	EPA 160.2	130 mg/l
Oil & Grease	EPA 413.1	10 mg/l
Floating Solids (associated with industrial activities)	Visual Observation	No Visible Discharge
Oil & Grease Sheen	Visual Observation	No Visible Sheen

The results of stormwater sample analyses will be tabulated and submitted to the DEQ's Northwest Region by July 15th for the preceding reporting period (July 1st through June 30th).

In the event that stormwater monitoring results indicate that a pollutant parameter for which the receiving water is water quality limited is being discharged in significant concentrations, a waste load allocation may be added to the permit conditions by the DEQ.

In the event that stormwater monitoring results indicate that a pollutant parameter is being discharged at a concentration that may be a threat to the water quality of the receiving stream, additional effluent limits may be added to the permit conditions by the DEQ.

Biannual sample analytical results and periodic visual inspection observations will be evaluated by SSP-IT's Stormwater Pollution Prevention Team during periodic SWPC Plan effectiveness assessments to determine if modified or additional stormwater management practices and/or structural controls are warranted. The SWPC Plan will be revised as appropriate, and employees will be properly trained as necessary.

6.0 IMPLEMENTATION SCHEDULE

In accordance with the requirements of NPDES General Permit 1200-Z, revision of the facility's SWPC Plan was required within 90 days of receipt of the General Permit. In addition, implementation of the plan, with the exception of site controls requiring capital improvements, was required within 90 days of SWPC Plan revision. Future revision of this plan may be required as a result of modification of the General Permit, and will be

completed in accordance with the schedules provided in the modified permit, as applicable.

Site controls determined to be warranted based on SWPC Plan review (as described in Section 4.6) will be implemented in a timely manner, and will be incorporated into the SWPC Plan as an update. Updated SWPC Plans will be submitted to the DEQ within 14 days of completion.

7.0 ADDITIONAL PERMIT REQUIREMENTS

7.1 Waste Disposal Wells

Oregon Administrative Rule (OAR) 340-44-50 provides specific requirements for the use of waste disposal wells for stormwater drainage. The SSP-IT facility does not use waste disposal wells for stormwater drainage.

7.2 Surface Water Temperature Management Plan

Individual stormwater dischargers are not expected to cause a measurable increase in stream temperature. Compliance with the NPDES General Permit meets the requirement of OAR 340-41-26(3)(a)(D) to develop and implement a surface water temperature management plan. However, in the event that the Total Maximum Daily Load (TMDL) for temperature is being exceeded by stormwater dischargers in a specific river basin, additional management practices to reduce the temperature of discharges may be required. Such management practices may include increasing vegetation to provide shading, construction of underground conveyance systems or detention structures, or installation of filtration devices to reduce above-ground detention times.

In the event that additional temperature management controls are required by the DEQ, SSP-IT will revise the SWPC Plan to include management practices focused on reducing discharge temperatures, as necessary.

7.3 Specific River Basin Requirements

The SSP-IT facility lies within the Willamette River Basin. Water quality standards for the Willamette River Basin are provided in OAR 340-041-0442 through OAR 340-041-0470.

In general, the effluent benchmarks specified in NPDES General Permit 1200-Z are expected to meet the water quality requirements for the Willamette River Basin. However, in some cases, monitoring requirements of the General Permit are not directly applicable for demonstrating compliance with Willamette Basin water quality standards. For example, based on the requirements of OAR 340-041-0445(2)(c), no more than a

10% cumulative increase in natural stream turbidities is allowed for a discharger, as measured relative to a control point immediately upstream of the turbidity causing activity. However, the NPDES General Permit does not require monitoring for turbidity, but for total suspended solids (TSS). Although the benchmark for TSS is expected to be protective of the turbidity standard, no direct correlation between the two measurements has been determined.

The DEQ is currently addressing this situation by modifying the NPDES General Permits for specific watersheds. In the event that additional monitoring or management controls are required by the modified permits (provided they apply to the SSP-IT facility), SSP-IT will revise the SWPC Plan to include those monitoring requirements and management practices, as necessary.

8.0 PLAN APPROVAL AND CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature Date

Terry Glucoft
Vice President/General Manager
Schnitzer Steel Products Co.

FIGURES

APPENDIX A:
NPDES GENERAL STORMWATER DISCHARGE PERMIT

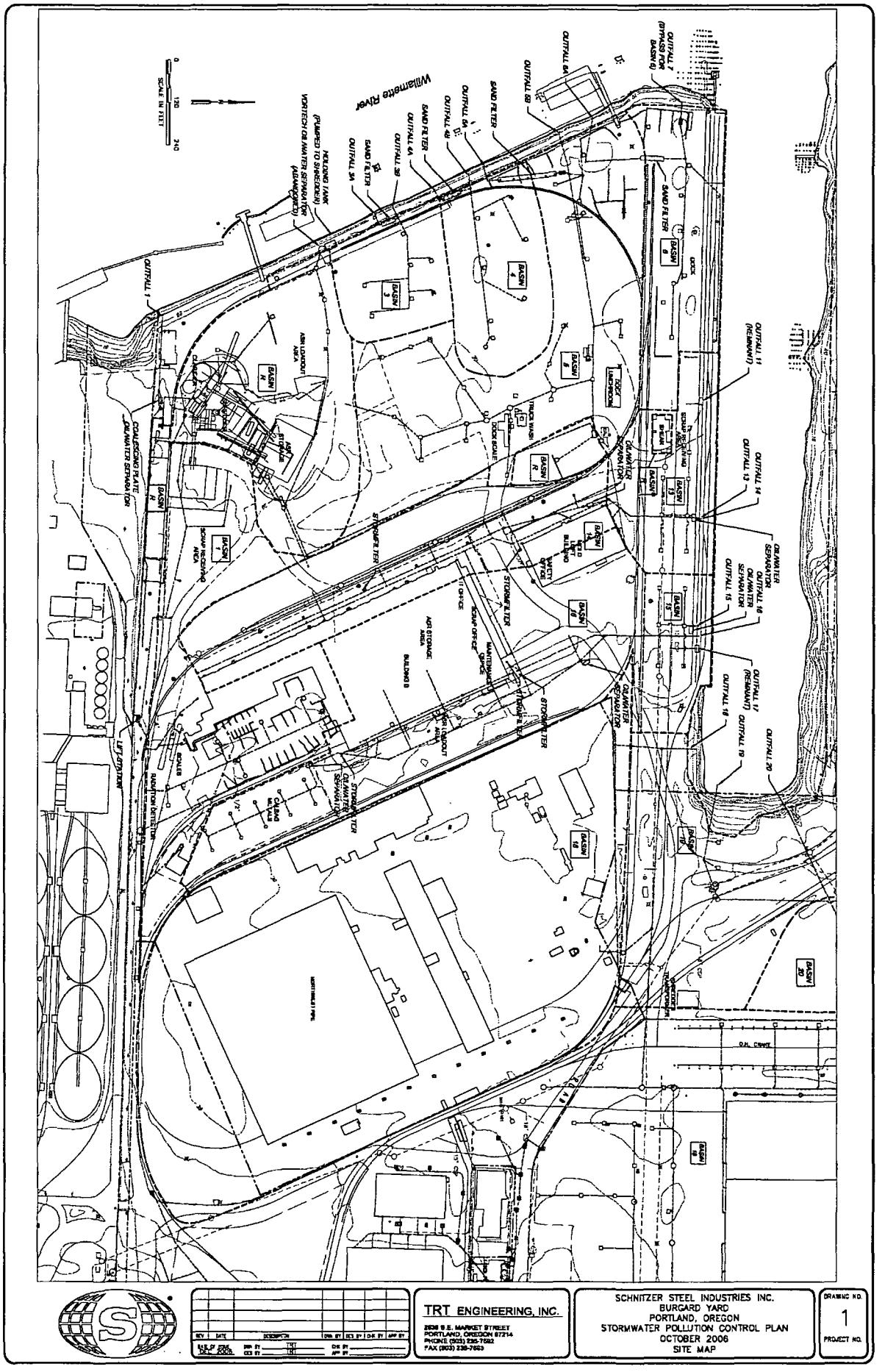
APPENDIX B:
SCRAP ACCEPTANCE POLICY

APPENDIX C:
SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN

APPENDIX D:
SITE INSPECTION CHECKLIST

APPENDIX E:
TRAINING RECORD FORM

SCHNSP04 12/20/06



REV	DATE	DESCRIPTION	DRN BY	DES BY	CHK BY	APP BY

DRN BY TRT CHK BY
DES BY TRT APP BY

TRT ENGINEERING, INC.
2636 S.E. MARKET STREET
PORTLAND, OREGON 97214
PHONE (503) 236-7582
FAX (503) 236-7683

SCHNITZER STEEL INDUSTRIES INC.
BURGARD YARD
PORTLAND, OREGON
STORMWATER POLLUTION CONTROL PLAN
OCTOBER 2006
SITE MAP

DRAWING NO. 1
PROJECT NO.

SCHNITZER STEEL INDUSTRIES, INC.

12005 N Burgard Road, Portland, Oregon 97203
P.O. Box 10047, Portland, Oregon 97296-0047
(503) 224-9900 FAX (503) 286-6948

October 9, 2007

Timothy P Dean
Permit Manager
City of Portland – Industrial Stormwater Program
6543 N. Burlington Avenue, Bldg. 217
Portland, Oregon 97203

SUBJECT: Response to September 6, 2007 BES Letter

Dear Mr. Dean:

The City of Portland Bureau of Environmental Services has requested Schnitzer Steel amend Appendix A of the Stormwater Pollution Control Plan to provide additional information regarding the methods of storage and disposal of any unacceptable wastes inadvertently received at the facility. Rather than amending Appendix A, Schnitzer Steel would like to request a meeting with you to discuss the issue raised and propose alternatives to amending the stormwater pollution control plan. Schnitzer Steel does not want in any way to give customers the impression our company handles, stores or disposes of prohibited materials. Such an impression may create unintended expectations from customers and may create unwanted scrap quality results.

At this time, if Schnitzer Steel were to receive prohibited scrap, employees would isolate the scrap load and/or material and identify the customer responsible for bringing the load to the facility. The customer would be given the material back and given assistance as to possible options for appropriate handling, storage and ultimate disposal. Schnitzer keeps a list of venders and government agency contacts that can be given to the customer to assist in their handling of the materials. In the event prohibited material cannot be returned immediately to the customer, we segregate the material and arrange for proper recycling or disposal ourselves.

Schnitzer Steel works diligently to avoid collection of unwanted scrap materials as outlined in the Scrap Acceptance Guidelines. Several proactive strategies are taken to avoid receiving prohibited materials including:

- Employee training with the Scrap Acceptance Guidelines.
- Multiple inspections at the facility during the receiving and offloading of scrap materials.
- Technical assistance visits of major scrap suppliers at their facilities.

<<MACRO>>

- Generation of technical assistance guidance documents for distribution to customers.

We look forward to meeting with you to discuss this issue and any other storm water related topics you may want to discuss. Please contact me at (503) 286-6976 to set up a time to meet.

Sincerely,

SCHNITZER STEEL INDUSTRIES, INC.

Jim Jakubiak
Environmental Administrator

cc: Jamie Wilson, Schnitzer Steel Industries, Inc.
Jim Goodrich, Schnitzer Steel Industries, Inc.
Mat Cusma, Schnitzer Steel, Industries, Inc.

STORMWATER POLLUTION CONTROL PLAN

SCHNITZER STEEL PRODUCTS CO.

International Terminal

12005 N Burgard Road
Portland, Oregon 97203
Multnomah County

File No. 108103

November 2007

Authored By: Mathew Cusma, Schnitzer Steel Industries, Inc.

STORMWATER POLLUTION CONTROL PLAN
SCHNITZER STEEL PRODUCTS CO.
International Terminal

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

(figures follow text)

LIST OF APPENDICES

STORMWATER POLLUTION CONTROL PLAN
SCHNITZER STEEL PRODUCTS CO.
International Terminal

1.0 PLAN OVERVIEW

1.1 Introduction

This Stormwater Pollution Control (SWPC) Plan covers the operations of the Schnitzer Steel Products Co. (SSP) scrap metal recycling facility and International Terminal (IT) cargo facility located in the Burgard Industrial Park on the east bank of the Willamette River in north Portland, Oregon. This SWPC Plan was prepared in accordance with the requirements of the Oregon Department of Environmental Quality (DEQ) General Permit 1200-Z issued under the National Pollutant Discharge Elimination System (NPDES).

The U.S. Environmental Protection Agency's (EPA's) model permit for the scrap processing and recycling industry (U.S. EPA, 1993), and the DEQ's *Guidance Document for Preparation of the NPDES Storm Water Pollution Control Plan* (DEQ, 1997) were used as guidance for the preparation of this SWPC Plan.

This SWPC Plan describes the SSP-IT facility and its operations; identifies potential sources of stormwater pollution at the facility; and describes appropriate stormwater pollution control measures to reduce the potential for discharge of pollutants in stormwater run-off. In addition, the requirement for periodic review of this Plan is established.

1.2 General Facility Information

Following is a brief summary of general facility information related to the SSP-IT site:

Name of Facility:	Schnitzer Steel Products Co.
Owner:	Schnitzer Steel Industries, Inc.
Operator:	Schnitzer Steel Products Co.
Facility Address:	12005 N Burgard Road Portland, Oregon 97203

Mailing Address: P.O. Box 10047
Portland, Oregon 97296-0047

Facility Contacts:

Primary: Jim Goodrich, General Manager
(503) 286-5771
(503) 793-0023 (cell)

Alternate: Jim Jakubiak, Environmental Administrator
(503) 286-6976
(503) 519-4795 (cell)

Alternate: Mathew Cusma, Environmental Administrator
(503) 286-6944
(503) 209-6057 (cell)

Number of Employees: 130 (approximate - varies)

Operations Description: Ferrous scrap metal recovery and recycling. Scrap metals are delivered to the site from private and commercial parties by truck, rail, or barge, and are graded and sorted on-site. Scrap metals may be resized by shredding, shearing, or torching, and are ultimately shipped off site by truck, rail, barge, or ship for use as feed stock in domestic or foreign steel mills.

Standard Industrial Classification (SIC) Code: 5093, Scrap and Waste Materials

Site Drainage: The site is flat and has been graded to promote desired drainage patterns. The site is predominantly paved (asphalt) and stormwater drains by sheet flow to catch basins. Catch basins drain through subsurface piping to oil/water separators and/or sand filters, which discharge either to an onsite process water management system, or off site to the Willamette River.

Stormwater Outfalls: Sixteen active outfalls discharge to the Willamette River.

1.3 Plan Objectives

In November 1990, the U.S. EPA adopted regulations (40 CFR Parts 122, 123, and 124) to control stormwater discharges from industrial facilities and certain municipalities through the NPDES permit program. The goal of the NPDES permit program is to improve the quality of surface waters by reducing the quantity of pollutants that are

potentially contained in stormwater run-off. In the State of Oregon, the Oregon DEQ has been granted the authority to administer the NPDES program.

The NPDES program specifies certain SIC categories [40 CFR §122.26(b)(14)(i-ix, xi)] for which discharge permits are required. Any facility falling within such a category, and from which stormwater leaves the site and enters surface waters through a "point source," must apply for a stormwater discharge permit under the NPDES system. In addition, facilities subject to NPDES permitting requirements, which include the SSP-IT facility, are required under the permit conditions to prepare and implement a Stormwater Pollution Control Plan. The SSP-IT facility is currently permitted to discharge stormwater to waters of the State under General Permit 1200-Z.

The objectives of this SWPC Plan are: 1) to identify potential sources of pollution at the facility which could adversely affect the quality of the stormwater discharges from the site, and 2) to describe appropriate pollution control measures and best management practices (BMPs) that will address the identified potential pollution sources and stormwater quality requirements for this facility. Proposed control measures include active potential source isolation and abatement, as well as support programs such as a periodic facility inspection program and detailed recordkeeping and reporting procedures. These measures will assist the compliance staff in maintaining compliance with the terms and conditions of General Permit 1200-Z.

1.4 SWPC Plan Organization

The SWPC Plan is organized into sections as follows:

Section 2.0: Stormwater Pollution Prevention Team

Personnel responsible for implementation of the SWPC Plan are identified and their specific responsibilities related to stormwater management are detailed.

Section 3.0: Facility Description

A detailed description of the site layout, facility operations, and potential sources of stormwater pollution is presented. A facility location map, a site plan showing drainage and other relevant features, an inventory of significant materials potentially exposed to stormwater, and a discussion of past spills are also included.

Section 4.0: Stormwater Pollution Controls

Stormwater management controls, and spill prevention and response procedures are detailed. Preventive maintenance measures, the employee training program, and periodic SWPC Plan review and amendment requirements are set forth.

Section 5.0: Stormwater Monitoring Program

The stormwater monitoring program, including sampling frequencies and protocols, analytical parameters, and recordkeeping and reporting requirements are presented.

Section 6.0: Implementation Schedule

The SWPC Plan implementation schedule and the discharge permit compliance schedule are detailed.

Section 7.0: Additional Permit Requirements

Oregon Administrative Rules (OAR) specific to the Willamette Basin are addressed.

Section 8.0: Plan Certification

Certification of the SWPC Plan by the owner/operator is presented.

2.0 STORMWATER POLLUTION PREVENTION TEAM

Stormwater pollution prevention depends on the awareness and cooperation of all SSP employees. However, the Stormwater Pollution Prevention Team is primarily responsible for developing, implementing, maintaining and revising this SWPC Plan; ensuring facility employees receive appropriate training in BMPs related to stormwater; conducting periodic site inspections to identify areas needing improvement; and ensuring that any identified deficiencies are corrected in a timely manner.

Team members and their specific duties and responsibilities related to stormwater management are detailed below. All members of the team are familiar with the management and operations of the SSP-IT facility.

Jim Goodrich, General Manager: Responsible for supervision and direction of all stormwater pollution prevention activities at the facility, including compliance with the General Permit and the SWPC Plan. Releases annual stormwater quality reports to the DEQ (July 15th each year), and approves necessary budget items and schedules for implementation of pollution control measures as required by the SWPC Plan.

Mathew Cusma, Environmental Administrator: Responsible for overseeing day-to-day SWPC Plan implementation. Performs necessary recordkeeping and reporting activities. Assists with employee training related to stormwater pollution prevention. Conducts periodic site inspections and SWPC Plan effectiveness evaluations.

Jim Jakubiak, Environmental Administrator: Responsible for overseeing day-to-day SWPC Plan implementation. Performs necessary recordkeeping and reporting activities. Assists with employee training related to stormwater pollution prevention. Conducts periodic site inspections and SWPC Plan effectiveness evaluations.

3.0 FACILITY DESCRIPTION

3.1 Facility Location and Description

The SSP-IT facility occupies approximately 70 acres of upland in the Rivergate industrial area between the Willamette River and North Burgard Road in Portland, Oregon. Access to the facility is provided primarily by an entrance roadway off of North Burgard Road near the intersection of North Terminal Road. The site can also be accessed using North Time-Oil Road. A facility location map is provided as Figure 1.

The site is fenced on three sides, with the fourth side bounded by the river. The active portion of the property is bounded as follows:

- On the north, by a marine vessel berthing slip, Jefferson Smurfit Corporation, and Time Oil Co.
- On the east, by Northwest Pipe & Casing Co., Lampros Steel, and Western Machine Works, and by North Burgard Road.
- On the south, by Terminal 4, a shipping terminal owned and operated by the Port of Portland.
- On the west, by the Willamette River.

Neighboring properties are not addressed in this SWPC Plan, except to the extent that their discharge may affect discharges from the outfalls associated with SSP-IT. SSP-IT is in continuing communication with these facilities regarding issues related to stormwater management.

The facility is predominantly paved (asphalt), and includes two large warehouses, several modular office buildings, a lunch/locker room, and two scale houses. A large automobile shredder, including associated magnetic separators and conveyors, is located near the center of the property, and a hydraulic guillotine shear is located in the north-central portion of the property.

3.2 Operations Description

Metal scrap consisting of a wide variety of recycled items including metal parts, automobiles, appliances, and steel fabrication remnants is delivered to the facility from private and commercial parties by truck, rail, or barge. The scrap is weighed, graded and sorted according to its type, size and thickness, and the transport is directed to the appropriate location at the facility for offloading.

Once received, the scrap material is either processed immediately (e.g., in the shredder or shear, depending on the grade of the material), or is staged for future processing or offsite transfer. Materials processed in the shredder include automobiles, appliances, baled and loose tin and sheet metal, and other relatively thin metals. The shredder reduces the size of the scrap and separates the ferrous metals from non-ferrous metals and non-metallics (Automobile Shredder Residue [ASR]) using a variety of means including magnetic and counter-current separators. The shear is used to re-size steel plate, heavy-walled pipe, cable, and other relatively thick scrap, using a hydraulic guillotine. Items not amenable to processing in either the shredder or the shear may be cut by portable shears or by torch, or transferred offsite as-is.

Processed and unprocessed scrap is temporarily staged at the facility in outdoor piles until offsite shipment is arranged. The processed and sorted scrap is then loaded into trucks, rail cars, cargo containers, barges, or ships for shipment off site to domestic and foreign steel mills, where the material is melted and formed into new steel for manufacturing of new products. The ASR is loaded on trucks for shipment offsite for use as an approved alternate daily cover material at appropriate Subtitle D landfills.

In addition to these primary facility operations, several support operations, including weigh-scales, vehicle and equipment maintenance, steel remnant storage and sales, bulk material (e.g., pig iron, ferro-manganese, silica-manganese, etc.) storage and sales, and truck washing, are conducted at the facility. Materials related to these support operations that have the potential to adversely impact stormwater, including petroleum products, coolants (glycol), and waste fluids (oils and coolant), are stored either indoors or in a covered outdoor area provided with secondary containment. Steel, pig iron, manganese, and similar bulk materials are typically stored outdoors in paved areas divided by steel retaining walls.

3.3 Site Map

Pursuant to the requirements of NPDES General Permit 1200-Z, a site map of the facility is provided with this SWPC Plan. The site map shows the following features:

- Drainage patterns
- Drainage and discharge structures

- Catch basins
- Sumps
- Storm sewer piping
- Outfalls
- An outline of the drainage area for each stormwater outfall
- Paved areas and buildings within each drainage area
- Areas used for outdoor manufacturing, treatment, storage, and/or disposal of significant materials (no disposal occurs at the site)
- Structural control measures for reducing pollutants in stormwater run-off
    - Sand filters
    - Oil/water separators
    - Containment booms
    - Grease traps
- Material loading and access areas
- Hazardous waste treatment, storage and disposal facilities (**NONE**)
- Locations of wells, including waste injection wells (**NONE**), seepage pits (**NONE**), dry wells (**NONE**), etc.
- Locations of springs, wetlands, and other surface water bodies
    - Willamette River
    - Berthing Slip (appendage of Willamette River)

3.4 Stormwater Drainage

Stormwater run-off at the SSP-IT facility is routed to 16 active outfalls which discharge into the Willamette River. Each of the outfalls serves a specific drainage area within the facility boundaries, as shown on the site map provided with this SWPC Plan. In addition, there are several remnant outfalls at the site related to historic operations that no longer discharge stormwater. Table 1 presents a summary of each of the outfalls at the facility, the activities conducted in the associated drainage areas, and the significant materials present.

In addition to the facility drainage areas served by the outfalls identified in Table 1, precipitation incident in five drainage areas is contained and used in the scrap processing operations at the site. These areas are described below:

- The area immediately surrounding the shredder (approximately four acres) is paved and provided with catch basins piped to a closed-loop collection and treatment system.

Table 1 Insert

- In addition to shredder operations, this area is used for staging of unprocessed scrap items, processed scrap, and ASR. Water collected in this area is settled and screened to remove bulk solids, and is then transferred to a 1 million gallon storage tank. Stored water is supplied to the shredder, as needed, to facilitate the shredding of metal materials and dust control. The water added to the shredder either evaporates, or is discharged with the shredded material, and drains back into the area catch basins to be recycled (i.e., it is a closed loop system). Because stormwater is not capable of providing sufficient water for this purpose during most of the year, water also may be drawn from a nearby supply well, as well as from the city water supply, to fulfill the need for shredder process water.
- An approximate 400 foot by 60 foot concrete slab (approximately $^1/_2$ acre) located along the southern property boundary near the shredder drains through two large oil/water separators. This slab is used for storage of motor blocks, machine turnings, and other potentially oily scrap. Stormwater from this slab is pumped from the oil/water separator to the shredder for use as process water make-up.
- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system. This area is used primarily for storage of scrap electrical cable and for maintenance of large equipment.
- The electrical transformer substation serving the old shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, as necessary. This water is pumped into the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater. The stormwater is pumped from the sump through two large oil/water separators (located near the dock lunchroom), and is then transferred to the shredder process water recycling system for re-use.

3.5 Significant Materials and Potential Stormwater Pollutants

The NPDES General Permit 1200-Z requires the SWPC Plan to include a description of "significant materials" at the site which may be exposed to stormwater. For the purposes of the permit, "significant materials" are defined as including, but not limited to, "raw materials; fuels; materials such as solvents, detergents and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag and sludge that have the potential to be released with storm water discharges."

Significant materials that might be expected at the SSP-IT facility include the following:

- Ferrous metal scrap
- Non-ferrous metal scrap
- Automobile shredder residue (ASR - shredded plastic, fabric, carpet and rubber residuals from the recycling process)
- Bulk materials (pig iron, metal alloys, etc.)
- Petroleum products (new and used)
- Trash and debris
- Steel and other metal products

Both new and used vehicle maintenance fluids (e.g., oil, hydraulic fluid, antifreeze, etc.) are stored in drums and other closed containers, either inside an enclosed building, or within a covered secondary containment area. Potential contact of these materials with stormwater would be limited to leaks from vehicles or equipment, or potential spills.

As a result of the presence of these significant materials, and as summarized above in Table 1, the following potential stormwater pollutants have been identified:

- Petroleum hydrocarbons
- Oil and grease
- Hydraulic fluid
- Fuels (diesel, gasoline, etc.)
- Antifreeze (glycol)
- Heavy metals (dust)
- Dust/soils

4.0 STORMWATER POLLUTION CONTROLS

This section describes the stormwater pollution controls that will be implemented at the facility to reduce or eliminate the potential for pollutants to impact stormwater run-off from the site. The following categories of pollution controls are addressed, as required by NPDES General Permit 1200-Z:

- Stormwater Best Management Practices
- Containment
- Oil and Grease

- Waste Chemicals and Material Disposal
- Erosion and Sediment Control
- Debris Control
- Stormwater Diversion
- Covering Activities
- Housekeeping
- Other Operational Controls (in addition to those required by permit)
- Spill Prevention and Response
- Preventive Maintenance
- Employee Education
- Recordkeeping and Internal Reporting Procedures
- Plan Review and Revision Requirements

4.1 Stormwater Management

The potential for stormwater pollution occurs when incident rainwater or stormwater run-off comes into contact with pollutants on exposed surfaces. Pollutants may dissolve, become suspended, or float on the surface of the water, or may attach (e.g., via absorption or adsorption) to soil particulates suspended in the stormwater. Stormwater quality at the SSP-IT facility has the potential to be impacted as a result of exposed or leaking vehicles or equipment, stockpiled scrap metals and bulk materials, staged shredder residues, and exposed pavement impacted by vehicle traffic and parking.

The vast majority of the SSP-IT property (approximately 90%) is paved (asphalt or concrete), and is graded to drain to catch basins. Most of the site's catch basins are designed as grease traps (i.e., with an inverted drain pipe). Stormwater run-off drains via sheet flow to the catch basins, the majority of which are piped to oil/water separators and/or settling cascades, and ultimately to the outfalls serving the site. There are a total of 16 active stormwater outfalls serving the site, which discharge to the Willamette River either directly, or via the berthing slip. As indicated in Table 1, above, two former outfalls (Outfall 17) is a remnant of the historical ship yard, and is not currently connected to any catch basins. Six other former outfalls (Outfalls 2, 8, 9, 10, 11 and 12) have been formally abandoned.

In addition, Outfall 18 primarily serves facilities east of the SSP-IT facility, at least one of which uses the outfall for permitted discharge of non-contact process water. SSP operates a small fuel island in an area near the east property boundary that is also served by this outfall. Stormwater in the fuel island area drains through grease-trap

catch basins and through a three-stage oil/water separator prior to joining other flows directed to the outfall.

As described in detail in Section 3.4, and again in Section 4.1.1 below, precipitation incident in five facility drainage areas is contained and used in the scrap processing operations at the site. These areas include the area immediately surrounding the shredder (approximately four acres), a concrete slab at the south property boundary (approximately $^1/_2$ acre), a small area south of the shear (approximately $^1/_2$ acre), the concrete slab underlying the shear, and a small secondary containment system for the old shredder electrical transformer substation.

SSP has implemented a variety of stormwater pollution controls, BMPs, and structural modifications to minimize the potential for contamination of stormwater run-off from the site. Stormwater pollution controls can generally be categorized as either source controls or structural controls. Source controls are practices that reduce or eliminate the potential for contact of stormwater with pollutant sources, or eliminate non-stormwater discharges (e.g., spills or leaks). Structural controls are in-pipe or end-of-pipe treatment systems and discharge volume reduction devices. Some controls, such as containment structures designed to isolate potential pollutant sources, may be classified in either category.

In general, source controls are given the highest priority for implementation under this SWPC Plan. SSP believes that control of potential pollution sources is a more proactive approach to stormwater pollution prevention, minimizing the need for often expensive end-of-pipe treatment technologies. However, due to the nature of scrap recycling operations and existing conditions, structural controls have also played an important role in stormwater pollution prevention at the facility, and will continue to be evaluated for implementation.

Table 2 provides a summary of the existing and proposed stormwater pollution control measures relevant to the SSP-IT facility. As indicated in the table, existing control measures are continuously undergoing evaluation for applicability and effectiveness, and some have been designated for improvement. The following subsections describe the control measures in greater detail.

Table 2: **Stormwater Pollution Controls and BMPs**

4.1.1 CONTAINMENT

As noted above, containment measures, which involve isolating potential pollution sources from contact with stormwater, may be classified as both a source control and a structural control. Containment measures play an important part in stormwater pollution control at the SSP-IT facility, and are generally considered to be the preferred mechanism for reducing or eliminating adversely impacted stormwater discharges. The following containment measures have been implemented at the facility to minimize the exposure of significant materials to stormwater:

- To the extent possible, vehicle and equipment maintenance activities are conducted inside a fully enclosed, concrete floored building. The building floor slopes toward low spots in the floor that serve as blind liquid collection points. Drains inside the building do not connect to the site's stormwater sewer system. Vehicle maintenance outside of the building is conducted only in the event of an emergency, such as the failure of hydraulic systems, and is limited to activities necessary to ensure capture and containment of fluids and other significant materials. Equipment maintenance outside of the building is limited to items that are not mobile or portable, or that are too large to bring inside the building.
- New and used motor oil, hydraulic fluid, antifreeze, etc. are stored in drums and other sealed containers under roof in a concrete secondary containment unit. Containers are elevated above the floor of the containment structure to facilitate detection and collection of spilled and accumulated liquids. Small quantities of these items may also be stored inside of the vehicle maintenance building, elevated on pallets or placed in polyethylene or steel drip pans.
- The paved area immediately surrounding the automobile shredder (approximately four acres) is sloped toward catch basins, which are piped to a concrete storage vault. Water collected in the vault is settled and screened and supplied to the shredder, as needed, as a coolant/lubricant to facilitate the shredding of metal materials. The water added to the shredder either evaporates in the process, or is discharged with the shredded material, draining back into the catch basins to be again recycled. This area is also used for stockpiling of shredded ferrous and non-ferrous metals and ASR.
- An approximate 400 foot by 60 foot concrete slab (approximately $^1/_2$ acre) located along the southern property boundary near the shredder drains through two large oil/water separators. This slab is used for storage of motor blocks, machine turnings, and other potentially oily scrap. Stormwater from this slab is pumped from the oil/water separator to the shredder process water vault for use as process water make-up.
- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also pumped to the shredder process water recycling

system. This area is used primarily for storage of scrap electrical cable and maintenance of large equipment.

- The electrical transformer substation serving the old shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, as necessary. This water is pumped into the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater. The stormwater is pumped from the sump through two large oil/water separators (located near the dock lunchroom), and is then transferred to the shredder process water recycling system for re-use.
- Drip pans are placed beneath vehicles and equipment that show evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).

4.1.2 OIL AND GREASE

Oil and grease separation is a structural control that is in extensive use at the SSP-IT facility. The following oil and grease separation control measures have been implemented for stormwater at the site.

- There are nine oil/water separators in use for stormwater treatment at the facility. Oil/water separators are passive, flow-through, multi-step chambers designed to separate floating product and settleable solids from the discharge stream. The oil/water separators vary in size and complexity, and are installed in discharge lines serving the following areas.
    - A coalescing plate oil/water separator is installed at Outfall 1. The drainage area served by this unit includes the site access road, the truck scales, remnant steel storage, and office parking. In addition to a sediment-retaining weir and oil-retaining baffle, this unit includes a bank of coalescing media plates designed to facilitate the removal of oils from the discharge stream.
    - Each of the four sand filters in use at the site is equipped with a four-stage oil/water separator. These units serve the drainage areas that discharge along the riverfront. These areas are used for staging and storage of processed and unprocessed scrap, vehicle traffic and general site operations.
    - One eight-stage oil/water separator is installed at Outfall 13. The drainage area served by this unit, located on the dock immediately east of the shear, is used for staging of scrap metals which must be

torch cut or otherwise dismantled either prior to, or in lieu of, being resized in the shear.

- A coalescing plate oil/water separator is installed at Outfall 14. The drainage area served by this unit includes the site road parallel to Building B and employee parking. In addition to a sediment-retaining weir and oil-retaining baffle, this unit includes a bank of coalescing media plates designed to facilitate the removal of oils from the discharge stream.
- One eight-stage oil/water separator is installed at Outfall 15. The drainage area served by this unit, located on the dock east of the shear, is used for staging of scrap metals which must be torch cut or otherwise dismantled either prior to, or in lieu of, being resized in the shear.
- A coalescing plate oil/water separator is installed at Outfall 16. The drainage area served by this unit includes the site access road and office parking. In addition to a sediment-retaining weir and oil-retaining baffle, this unit includes a bank of coalescing media plates designed to facilitate the removal of oils from the discharge stream.

- Five single cartridge Stormwater Management StormFilters have been installed at the catch basins nearest the bay doors opening into Building B and the Mold Loft Building as shown on the site map. The devices were installed in order to address the increased risk of potential oil spills or leakage at these locations.
- Approximately 80% of the storm drain catch basins at the SSP-IT property are designed with inverted outflow pipes to trap oil and grease in the basin. The outflow pipes discharge water collected in the basin from below the water surface, essentially trapping oil, grease and other floating materials in the basin. These catch basins are located throughout the site, but are concentrated in areas of storage and operations (e.g., most of the non-grease trap basins are located along access roads and in parking areas).
- Drip pans are placed beneath vehicles and equipment that show evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).
- Small spills or releases of oil or other petroleum products are cleaned up using dry absorbents which are swept up and properly disposed upon completion of clean-up. Soils that may be impacted by small spills are removed and properly disposed. Detergents and solvents are not used to clean up spills.
- Oil/water separators are inspected on a monthly basis for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned by a licensed private wastewater contractor, as necessary.

Numerous additional oil and grease separation control measures are in use at the facility related to the shredder process water system and other non-stormwater related activities that are not described here.

4.1.3 WASTE CHEMICALS AND MATERIAL DISPOSAL

Management controls related to waste chemicals and material disposal include both source control and structural control options. The following management practices related to waste chemical and material disposal have been implemented at the site:

- SSP's stringent scrap metal acceptance policy (included as Appendix A) requires that waste materials be removed from discarded items prior to acceptance.
- Appliances must have all electrical components removed.
- Vehicles must be drained of all fluids, including fuel, radiator and air-conditioning coolants, and lubricants.
- Lead acid batteries and mercury switches must be removed from all vehicles or equipment.
- Compressors from appliances must be removed, drained, and cut in half.
- Aerosol cans must be empty, and either punctured or crushed.
- Drums, barrels, and other containers must be thoroughly cleaned and cut open for inspection.
- Waste coolants and lubricants generated by SSP are accumulated in above ground storage tanks or drums in a covered, concrete secondary containment structure prior to periodic offsite shipment for recycling.
- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.
- Solvents and degreasers used in self-contained parts cleaners are periodically exchanged by an outside contractor, and waste solvents are transported offsite for recycling.
- Although uncommon, waste items delivered improperly to SSP (e.g., lead-acid batteries) are temporarily stored under cover in the maintenance building pending offsite shipment for recycling or proper disposal. Additional details related to management of unacceptable materials are included in Appendix A.

4.1.4 EROSION AND SEDIMENT CONTROL

The majority of the SSP-IT property (approximately 90%) is paved. Currently unpaved areas primarily consist of narrow strips of property along the banks of the Willamette

River and around the head of the ship berthing slip. Very narrow strips of unpaved area also exist along the network of railroad tracks at the site. The following measures have been implemented at the site to control sediment and erosion:

- Four sand filters have been installed to control suspended sediment discharge with stormwater along the river. These sand filters serve Outfalls 3, 4, 5, and 6/7. Each sand filter is equipped with a high flow bypass to prevent the sand filter from constricting high flow to the point of flooding the yard. As shown on the attached site map, outfalls designated with an "A" discharge treated flow, and outfalls designated with a "B" discharge the high flow bypass. An exception to these designations occurs at Outfall 7, which is the sand filter bypass discharge from Basin 6.
- All oil/water separators at the facility are equipped with either sediment weirs or elevated discharge pipes to trap sediments in a chamber of the unit.
- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week.
- Vegetation has been allowed to take root in unpaved areas along the water banks to reduce erosion. In addition, rip-rap has been historically emplaced on the slopes of the river bank which may be prone to erosion due to wave action.
- Straw bales, drain filters, or similar mechanisms are used to minimize the influx of sediment into stormwater catch basins and into the river, where appropriate.
- Facility-wide inspections are conducted at least once per month to identify areas of erosion, damaged pavement, and areas requiring sweeping.
- In areas where bulk material storage is conducted, drain covers may be emplaced during storage of materials or other activities which might contribute to suspended solids in stormwater run-off (e.g., fine particulates or dusty materials), as necessary.

4.1.5 DEBRIS CONTROL

Considering the nature of facility operations, debris build-up is of significant concern. Although scrap recycling operations requires the accumulation of both processed and unprocessed scrap metals in stockpiles, SSP personnel strive to ensure that only designated areas are used for these stockpiles, and that all roadways, railways, parking areas, work areas, and buildings remain free of accumulated debris. The following measures have been implemented at the facility to control debris:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week.
- Accessible areas are swept using a magnetic collector on an average of once per month.

- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and offloading.
- Two trailer sweep-off areas are designated along the access road to the facility to allow suppliers to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.
- Facility-wide inspections are conducted at least once per month to identify areas of debris build-up that need cleanup.

4.1.6 STORMWATER DIVERSION

Stormwater diversion controls have been implemented at the site primarily as a means of ensuring that stormwater drainage in areas that may be prone to adverse impact is either recycled, or is directed through treatment systems (e.g., oil/water separators and sand filters) prior to discharge. The following stormwater diversion measures have been implemented at the facility:

- The area immediately surrounding the shredder (approximately four acres) is paved and provided with catch basins piped to a closed-loop collection and treatment system. This water is used for cooling and dust suppression in the shredder.
- An approximate 400 foot by 60 foot concrete slab (approximately $^1/_2$ acre) located along the southern property boundary near the shredder drains through two large oil/water separators. Stormwater from this slab is pumped from the oil/water separator to the shredder for use as process water make-up.
- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also pumped to the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater. The stormwater is pumped from the sump through two large oil/water separators (located near the dock lunchroom), and is then transferred to the shredder process water recycling system for re-use.

4.1.7 COVERING ACTIVITIES

Activities and storage areas that are most prone to potentially adversely affecting stormwater quality are maintained under cover, either inside of the maintenance building, or in a roofed concrete secondary containment structure. These areas are further discussed in Section 4.1.1, above.

In addition, SSP has constructed a secondary separation system for the ASR that is completely enclosed within Building B. ASR from the shredder is loaded onto dump trucks and transferred to a large bin inside the building. A front-end loader then takes the ASR from the bin and feeds it into a hopper that delivers the material to shaker screens, separation equipment, and finally picking tables, to remove as much non-magnetic, non-ferrous metal as practical from the ASR. After passing through this system, the ASR is deposited in two large, elevated, bottom dump hoppers, that ultimately discharge the material into trucks destined for the landfill. This system results in a substantial decrease in the amount of significant materials which would be exposed to incident precipitation or stormwater run-off at the site.

Covered storage and operations areas are inspected monthly to ensure that any significant materials stored or used in the areas are being properly contained and managed.

4.1.8 HOUSEKEEPING

Maintaining a clean and orderly job site is instrumental for controlling potential stormwater pollutants, as well as for ensuring a safe working environment. The following management practices related to good housekeeping are followed at the SSP-IT facility:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week, and are swept using a magnetic collector on an average of once per month. Minimal amounts of water are used in the paved areas for dust control during dry periods.
- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and offloading.
- Two trailer sweep-off areas are designated along the access road to the facility to allow suppliers to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.
- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.
- Drip pans are placed beneath vehicles and equipment that exhibit evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).
- Facility-wide inspections are conducted at least once per month to identify areas needing cleanup and general policing.

4.1.9 OTHER OPERATIONAL CONTROLS

Significant operational controls are in place at the facility that exceed the specific requirements of the NPDES General Permit. These controls include the following:

- Periodic community outreach events are conducted in order to elevate the awareness of scrap suppliers toward SSP's stringent scrap acceptance policies. These events include signage posted at SSP-IT, policy and guideline mailings, and visits to supplier facilities by SSP environmental and/or management personnel.
- An inbound material inspection program has been developed to minimize the potential for receipt of unacceptable materials. The program includes the following.
    - Passage of every load of scrap entering the facility through a radiation detector.
    - Visual screening of every load of scrap received at the facility by scale-house personnel.
    - Visual screening of all scrap materials offloaded from transport vehicles by equipment operators and ground personnel in the yard.
    - Periodic thorough inspections of offloaded scrap from specific suppliers (on a rotating basis) by environmental or management personnel.

In the event that unacceptable or suspect materials are detected as a result of this program, the materials may be segregated from the scrap for proper disposal, may be returned to the supplier, or the entire load may be rejected. In any case, the supplier will be contacted and informed of the rejection, and the scrap acceptance policy will be reiterated.

4.2 Spill Prevention and Response

SSP-IT maintains a written Spill Prevention, Control, and Countermeasures (SPCC) Plan, which details the specific procedures to be followed in the event of a spill or release of oil, fuel, or other petroleum product a the facility. A copy of the SPCC Plan is provided as Appendix B.

Potential causes of spills or leaks of significant materials at the facility could include container failures, equipment or vehicle leaks, and spills of shredded materials, ASR, and/or chemicals during handling or transport operations. Frequent inspections of storage, maintenance and processing areas, and inspections of vehicles and equipment are intended to identify potential problems areas, and to allow the timely detection of

any spillage prior to adversely impacting the storm sewer system, or reaching surface waters.

Spill response equipment, including containment and absorbent booms, absorbent socks and pads, and related safety equipment, are maintained on-hand in spill kits placed in strategic locations throughout the site.

Spill prevention and response provisions include the following:

- Operations personnel are equipped with radios and/or cellular phones to provide immediate communication in the event of an accidental release.
- Storm drain covers are available to block catch basins in the event of a spill which has the potential to reach a drain.
- Spill kits containing absorbent pads and booms, and other cleanup and safety supplies are placed in strategic locations throughout the site.
- An adequate supply of absorbent and containment booms and similar items are available to contain and clean up any spilled materials. Spilled materials are cleaned up using dry methods whenever possible.
- Containers of liquids, including oils and other petroleum products, are stored within secondary containment, or are placed on spill containment pallets.
- Drip pans are placed beneath vehicles and equipment that exhibit evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).
- Containers are periodically inspected to ensure that they are closed, properly labeled, and in good condition.

4.3 Preventive Maintenance

Preventive maintenance involves the regular inspection, cleaning and mechanical maintenance of vehicles, equipment, and stormwater management structures, as well as other activities designed to reduce the likelihood of spills and leaks. The following preventive maintenance provisions have been implemented at the SSP-IT facility:

- A vehicle and equipment inspection and maintenance program has been developed which includes the following:
    - Regularly scheduled vehicle and equipment inspections focused on fluid leaks.
    - Service and inspection checklists specific to each type of vehicle and major item of equipment.

- Maintenance logs detailing services performed on each vehicle and major item of equipment.
- Training requirements for personnel involved in vehicle and equipment operations, inspection, and maintenance.

- Major items of equipment that are stored or used outdoors are cleaned on a regular basis to remove accumulated oil and grease from exterior surfaces (except as necessary for proper operation).
- Vehicle and equipment maintenance is conducted within the enclosed maintenance building, to the extent possible.

During monthly site inspections, the inspector will determine whether potential pollution sources are being adequately controlled, and whether pollution controls specified in the SWPC Plan have been properly and effectively implemented. Inspections will be documented using a comprehensive Site Inspection Checklist (included as Appendix C), which will include the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented. The facility drainage areas described in Table 1 will be included in the inspections, and the following items will be inspected, at a minimum:

- Containment structures, booms and berms, on a monthly basis, to ensure that they are intact and functional.
- Discharges from outfalls, on at least a monthly basis when occurring, to inspect for color, foam and sheen.
- Facility-wide inspections, at least once per month, to identify areas of erosion, damaged pavement, and areas requiring sweeping.
- Oil/water separators, on a monthly basis, for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned by a licensed private wastewater contractor, as necessary.

4.4 Employee Education

SSP has developed a comprehensive employee training program which includes practices and procedures related to stormwater management, pollution prevention, and spill control and countermeasures. Operations personnel begin their training by viewing a stormwater pollution prevention video prepared and distributed through the Institute of Scrap Recycling Industries (ISRI). Additional training is provided by the facility's environmental and safety staff, and includes the following:

- Information on the acceptability and unacceptability of certain types of scrap and other materials.

- Proper procedures for containing or otherwise isolating unacceptable materials and spills.
- Locations of spill response kits and other emergency equipment.
- Proper notification procedures.

Training is documented using Training Record forms (included as Appendix D). Training Records are maintained for each employee for a minimum of five years, and are retained at the SSP Health and Safety office in the employee personnel files.

In addition to employee training, SSP-IT strives to educate its scrap suppliers regarding scrap acceptability, both to prevent improper receipt of unacceptable materials, and to protect site stormwater from potential pollution sources. SSP-IT has a written scrap acceptance policy (included as Appendix A) which is distributed to suppliers in periodic mailings and in frequent hand-outs when entering or exiting the facility. The policy identifies specific items that cannot be accepted, as well as particular preparation requirements for other items. The policy is periodically reviewed and updated, and updates are communicated promptly to SSP's suppliers.

4.5 Recordkeeping and Internal Reporting Procedures

Records of site inspections are maintained using a comprehensive Site Inspection Checklist (included as Appendix C). This checklist provides a means for documenting the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented.

Site Inspection Checklists, stormwater monitoring results, records of spills and associated corrective action, and preventive maintenance records will be retained on file by SSP for a minimum of five years.

Stormwater monitoring results will be tabulated and submitted in a report to DEQ's Northwest Region by July 15th of each year. Other relevant records will be made available to authorized representatives of the DEQ upon request.

4.6 Plan Review and Revision Requirements

Based on the results of monthly site inspections detailed previously, the SSP-IT facility will periodically assess the overall effectiveness of this SWPC Plan, and will implement modifications or improvements to the plan, as appropriate. The periodic plan assessment will include the following:

- The site map will be modified or updated to reflect current facility conditions.

- Identified potential stormwater pollution sources will be visually inspected to determine if they are being adequately and effectively controlled.
- Pollution control structures will be evaluated to determine if they have been properly installed, and to assess their effectiveness.
- Pollution control measures will be evaluated to determine if they have been properly implemented, and to assess their effectiveness.
- Spill response equipment and supplies will be inspected to ensure proper operation and adequate supply.

In addition, the SWPC Plan will be reviewed within 30 days of receipt of any sampling results demonstrating that effluent benchmarks specified in the NPDES General Permit have not been met. The purpose of this review will be to determine if the SWPC Plan has been properly and effectively implemented, and to identify any additional technically feasible and economical site controls that may be implemented to further improve the quality of stormwater discharges.

5.0 MONITORING PROGRAM

In compliance with the NPDES General Permit, stormwater samples will be collected from the active discharge outfalls serving the facility four times each year, if possible. Two events will occur prior to December 31st and two will occur after January 1st. The events will be conducted no less than 14 days apart.

As specified on the Site map and in Table 1, monitoring for the purposes of this SWPC Plan will include Outfalls 3, 4, 5, 6, 14, 15 and 20. Outfall 18 will not be included for monitoring under this plan, since it is sampled monthly by a neighboring facility as part of a separate NPDES Individual Permit.

SSP has reduced the number of monitoring points at the facility based on site operations and specific activities conducted within the drainage areas, in accordance with NPDES General Permit Condition B.1(c). Discharges from multiple outfalls serving drainage areas representing similar activities, and where discharges are expected to be of similar composition, are represented by a single monitoring point. In addition, outfalls serving areas with no exposure of stormwater to industrial activities will not require monitoring.

Visual monitoring at all outfalls and at areas of potential pollutant contact is required during at least one storm event per month during the rainy season (approximately October through April) that results in at least one hour of continuous discharge. In addition, visual monitoring at each outfall is required at least twice during the dry season (approximately May through September). These visual monitoring requirements will be met through monthly site inspections conducted as described in Section 4.0.

Collected stormwater samples must be representative of the discharge from the facility, and will be analyzed in accordance with the approved methods specified in 40 CFR 136.

Stormwater samples collected during the sampling events will be delivered to a laboratory for analysis for the parameters required by the NPDES General Permit, as summarized in Table 3.

Table 3: Stormwater Sample Analytical Requirements

PARAMETER	ANALYTICAL METHOD	EFFLUENT BENCHMARK
Total Copper	EPA 6010B	0.1 mg/l
Total lead	EPA 7421	0.4 mg/l
Total Zinc	EPA 6010B	0.6 mg/l
pH	EPA 150.1	5.5 to 9.0 s.u.
Total Suspended Solids (TSS)	EPA 160.2	130 mg/l
Oil & Grease	EPA 413.1	10 mg/l
Floating Solids (associated with industrial activities)	Visual Observation	No Visible Discharge
Oil & Grease Sheen	Visual Observation	No Visible Sheen

The results of stormwater sample analyses will be tabulated and submitted to the DEQ's Northwest Region by July 15th for the preceding reporting period (July 1st through June 30th).

In the event that stormwater monitoring results indicate that a pollutant parameter for which the receiving water is water quality limited is being discharged in significant concentrations, a waste load allocation may be added to the permit conditions by the DEQ.

In the event that stormwater monitoring results indicate that a pollutant parameter is being discharged at a concentration that may be a threat to the water quality of the receiving stream, additional effluent limits may be added to the permit conditions by the DEQ.

Sample analytical results and periodic visual inspection observations will be evaluated by SSP-IT's Stormwater Pollution Prevention Team during periodic SWPC Plan effectiveness assessments to determine if modified or additional stormwater management practices and/or structural controls are warranted. The SWPC Plan will be revised as appropriate, and employees will be properly trained as necessary.

6.0 IMPLEMENTATION SCHEDULE

Revision of the facility's SWPC Plan will be conducted in accordance with schedules provided in the NPDES General Permit 1200-Z, as applicable.

Site controls determined to be warranted based on SWPC Plan review (as described in Section 4.6) will be implemented in a timely manner, and will be incorporated into the SWPC Plan as an update.

7.0 ADDITIONAL PERMIT REQUIREMENTS

7.1 Waste Disposal Wells

Oregon Administrative Rule (OAR) 340-44-50 provides specific requirements for the use of waste disposal wells for stormwater drainage. The SSP-IT facility does not use waste disposal wells for stormwater drainage.

7.2 Surface Water Temperature Management Plan

Individual stormwater dischargers are not expected to cause a measurable increase in stream temperature. Compliance with the NPDES General Permit meets the requirement of OAR 340-41-26(3)(a)(D) to develop and implement a surface water temperature management plan. However, in the event that the Total Maximum Daily Load (TMDL) for temperature is being exceeded by stormwater dischargers in a specific river basin, additional management practices to reduce the temperature of discharges may be required. Such management practices may include increasing vegetation to provide shading, construction of underground conveyance systems or detention structures, or installation of filtration devices to reduce above-ground detention times.

In the event that additional temperature management controls are required by the DEQ, SSP-IT will revise the SWPC Plan to include management practices focused on reducing discharge temperatures, as necessary.

7.3 Specific River Basin Requirements

The SSP-IT facility lies within the Willamette River Basin. Water quality standards for the Willamette River Basin are provided in OAR 340-041-0442 through OAR 340-041-0470.

In general, the effluent benchmarks specified in NPDES General Permit 1200-Z are expected to meet the water quality requirements for the Willamette River Basin. However, in some cases, monitoring requirements of the General Permit are not directly applicable for demonstrating compliance with Willamette Basin water quality standards.

For example, based on the requirements of OAR 340-041-0445(2)(c), no more than a 10% cumulative increase in natural stream turbidities is allowed for a discharger, as measured relative to a control point immediately upstream of the turbidity causing activity. However, the NPDES General Permit does not require monitoring for turbidity, but for total suspended solids (TSS). Although the benchmark for TSS is expected to be protective of the turbidity standard, no direct correlation between the two measurements has been determined.

The DEQ is currently addressing this situation by modifying the NPDES General Permits for specific watersheds. In the event that additional monitoring or management controls are required by the modified permits (provided they apply to the SSP-IT facility), SSP-IT will revise the SWPC Plan to include those monitoring requirements and management practices, as necessary.

8.0 PLAN APPROVAL AND CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature Date

Jim Goodrich
General Manager
Schnitzer Steel Products Co.

FIGURES

APPENDIX A
SCRAP ACCEPTANCE POLICY

Inadvertent Receipt of Prohibited Scrap

Schnitzer Steel works diligently to avoid collection of unwanted scrap materials as outlined in the Scrap Acceptance Guidelines. Several proactive strategies are taken to avoid receiving prohibited materials including:

- Employee training on the Scrap Acceptance Guidelines, and identification and management of prohibited materials.
- Multiple inspections at the facility during the receiving and offloading of scrap materials.
- Technical assistance visits of major scrap suppliers at their facilities.
- Generation of technical assistance guidance documents for distribution to customers.

In the event that prohibited scrap is received at the Schnitzer Steel facility, yard employees are instructed to isolate the scrap load and/or material and identify the customer responsible for bringing the load to the facility. The customer is then informed of the infraction, and is required to remove the material from the facility. Schnitzer Steel will provide information and assistance to the customer to determine possible options for appropriate handling, storage and ultimate disposal of the prohibited material.

It is important to note that material that is prohibited from Schnitzer's facility is not necessarily harmful or valueless. Many unacceptable items inadvertently delivered to Schnitzer are fully recyclable by other entities. Schnitzer keeps a list of vendors and government agency contacts that can be given to the customer to assist in their handling of the materials.

In the event prohibited material cannot be returned immediately to the customer, the material is segregated in a covered area at the facility and proper recycling or disposal is arranged.

APPENDIX B
SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN

APPENDIX C
SITE INSPECTION CHECKLIST

APPENDIX D
TRAINING RECORD FORM

STORMWATER POLLUTION CONTROL PLAN

SCHNITZER STEEL PRODUCTS CO.
International Terminals
12005 N Burgard Road
Portland, Oregon 97203

October 1999

STORMWATER POLLUTION CONTROL PLAN
SCHNITZER STEEL PRODUCTS CO.
International Terminals

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

(figures follow text)

LIST OF APPENDICES

STORMWATER POLLUTION CONTROL PLAN
SCHNITZER STEEL PRODUCTS CO.
International Terminals

1.0 PLAN OVERVIEW

1.1 Introduction

This Stormwater Pollution Control (SWPC) Plan covers the operations of the Schnitzer Steel Products Co. (SSP) scrap metal recycling facility located at the International Terminals (IT) property in the Rivergate industrial area on the east bank of the Willamette River in north Portland, Oregon. This SWPC Plan was prepared in accordance with the requirements of the Oregon Department of Environmental Quality (DEQ) General Permit 1200-Z issued under the National Pollutant Discharge Elimination System (NPDES).

The U.S. Environmental Protection Agency's (EPA's) model permit for the scrap processing and recycling industry (U.S. EPA, 1993), and the DEQ's *Guidance Document for Preparation of the NPDES Storm Water Pollution Control Plan* (DEQ, 1997) were used as guidance for the preparation of this SWPC Plan.

This SWPC Plan describes the SSP-IT facility and its operations; identifies potential sources of stormwater pollution at the facility; and describes appropriate stormwater pollution control measures to reduce the potential for discharge of pollutants in stormwater run-off. In addition, the requirement for periodic review of this Plan is established.

1.2 General Facility Information

Following is a brief summary of general facility information related to the SSP-IT site:

Name of Facility:	Schnitzer Steel Products Co.
Owner:	Schnitzer Investment Corp.
Operator:	Schnitzer Steel Products Co.

Facility Address:	12005 N Burgard Road Portland, Oregon 97203
Mailing Address:	P.O. Box 10047 Portland, Oregon 97296-0047
Facility Contacts:	
Primary:	Terry Glucoft, General Manager (503) 286-6916 (503) 301-8360 (pager)
Alternate:	Jim Jakubiak, Environmental Administrator (503) 286-6976 (503) 527-2330 (pager)
Alternate:	Mathew Cusma, Environmental Administrator (503) 286-6944 (503) 903-7327 (pager)
Number of Employees:	75 (approximate)
Operations Description:	Ferrous scrap metal recovery and recycling. Scrap metals are delivered to the site from private and commercial parties by truck, rail, or barge, and are graded and sorted on-site. Scrap metals may be resized by shredding, shearing, or torching, and are ultimately shipped off site by truck, rail, barge, or ship for use as feed stock in domestic or foreign steel mills.
Standard Industrial Classification (SIC) Code:	5093, Scrap and Waste Materials
Site Drainage:	The site is flat and has been graded to promote desired drainage patterns. The site is predominantly paved (asphalt) and stormwater drains by sheet flow to catch basins. Catch basins drain through subsurface piping to oil/water separators, which discharge either to an onsite process water management system, or offsite to the Willamette River.
Stormwater Outfalls:	20 outfalls discharging to the Willamette River.

1.3 Plan Objectives

In November 1990, the U.S. EPA adopted regulations (40 CFR Parts 122, 123, and 124) to control stormwater discharges from industrial facilities and certain municipalities through the NPDES permit program. The goal of the NPDES permit program is to improve the quality of surface waters by reducing the quantity of pollutants that are potentially contained in stormwater run-off. In the State of Oregon, the Oregon DEQ has been granted the authority to administer the NPDES program.

The NPDES program specifies certain SIC categories [40 CFR §122.26(b)(14)(i-ix, xi)] for which discharge permits are required. Any facility falling within such a category, and from which stormwater leaves the site and enters surface waters through a "point source," must apply for a stormwater discharge permit under the NPDES system. In addition, facilities subject to NPDES permitting requirements, which include the SSP-IT facility, are required under the permit conditions to prepare and implement a Stormwater Pollution Control Plan. The SSP-IT facility is currently permitted to discharge stormwater to waters of the State under General Permit 1200-Z (included as Appendix A).

The objectives of this SWPC Plan are: 1) to identify potential sources of pollution at the facility which could adversely affect the quality of the stormwater discharges from the site, and 2) to describe appropriate pollution control measures and best management practices (BMPs) that will address the identified potential pollution sources and stormwater quality requirements for this facility. Proposed control measures include active potential source isolation and abatement, as well as support programs such as a periodic facility inspection program and detailed recordkeeping and reporting procedures. These measures will assist the compliance staff in maintaining compliance with the terms and conditions of General Permit 1200-Z.

1.4 SWPC Plan Organization

The SWPC Plan is organized into sections as follows:

Section 2.0: Stormwater Pollution Prevention Team

Personnel responsible for implementation of the SWPC Plan are identified and their specific responsibilities related to stormwater management are detailed.

Section 3.0: Facility Description

A detailed description of the site layout, facility operations, and potential sources of stormwater pollution is presented. A facility location map, a site plan showing drainage and other relevant features, an inventory of significant materials

potentially exposed to stormwater, and a discussion of past spills are also included.

Section 4.0: Stormwater Pollution Controls

Stormwater management controls, and spill prevention and response procedures are detailed. Preventive maintenance measures, the employee training program, and periodic SWPC Plan review and amendment requirements are set forth.

Section 5.0: Stormwater Monitoring Program

The stormwater monitoring program, including sampling frequencies and protocols, analytical parameters, and recordkeeping and reporting requirements are presented.

Section 6.0: Implementation Schedule

The SWPC Plan implementation schedule, and the discharge permit compliance schedule are detailed.

Section 7.0: Additional Permit Requirements

Oregon Administrative Rules (OAR) specific to the Willamette Basin are addressed.

Section 8.0: Plan Certification

Certifications of the SWPC Plan by the owner/operator and by a Professional Engineer registered in the State of Oregon are presented.

2.0 STORMWATER POLLUTION PREVENTION TEAM

Stormwater pollution prevention depends on the awareness and cooperation of all SSP employees. However, the Stormwater Pollution Prevention Team is primarily responsible for developing, implementing, maintaining and revising this SWPC Plan; ensuring facility employees receive appropriate training in BMPs related to stormwater; conducting periodic site inspections to identify areas needing improvement; and ensuring that any identified deficiencies are corrected in a timely manner.

Team members and their specific duties and responsibilities related to stormwater management are detailed below. All members of the team are familiar with the management and operations of the SSP-IT facility.

Terry Glucoft, General Manager: Responsible for supervision and direction of all stormwater pollution prevention activities at the facility, including compliance with the General Permit and the SWPC Plan. Releases annual stormwater quality reports to the DEQ (July 15th each year), and approves necessary budget items

and schedules for implementation of pollution control measures as required by the SWPC Plan.

Jim Jakubiak, Environmental Administrator: Responsible for overseeing day-to-day SWPC Plan implementation. Performs necessary recordkeeping and reporting activities. Assists with employee training related to stormwater pollution prevention. Conducts periodic site inspections and SWPC Plan effectiveness evaluations.

Mathew Cusma, Environmental Administrator: Responsible for overseeing day-to-day SWPC Plan implementation. Performs necessary recordkeeping and reporting activities. Assists with employee training related to stormwater pollution prevention. Conducts periodic site inspections and SWPC Plan effectiveness evaluations.

3.0 FACILITY DESCRIPTION

3.1 Facility Location and Description

The SSP-IT facility occupies approximately 70 acres of upland in the Rivergate industrial area between the Willamette River and North Burgard Road in Portland, Oregon. An additional approximately 50 acres of industrial land contiguous to the SSP-IT facility is owned by Schnitzer Investment Corp. (SIC), but is leased to other tenants, and is therefore not covered under this SWPC Plan. Access to the facility is provided primarily by an entrance roadway off of North Burgard Road near the intersection of North Sever Road. The site can also be accessed using North Sever Road and Time-Oil Road, although these two entrances primarily serve neighboring facilities. A facility location map is provided as Figure 1.

The site is fenced on three sides, with the fourth side bounded by the river. The active portion of the property is bounded as follows:

- On the north, by a marine vessel berthing slip, Jefferson Smurfit Corporation, and Time Oil Co.
- On the east, by Northwest Pipe & Casing Co., Ryerson Steel, Boydstun Metal Works, and Portland Sandblast Co. (tenants of SIC), and by North Burgard Road.
- On the south, by Terminal 4, a shipping terminal owned and operated by the Port of Portland.
- On the west, by the Willamette River.

Properties on the north and east sides of the site are not addressed in this SWPC Plan, except to the extent that their discharge may affect discharges from the outfalls associated with SSP-IT. Two outfalls (#1, and #18) receive stormwater flows from facilities east of the SSP-IT facility. SSP-IT is in continuing communication with these facilities regarding issues related to stormwater management.

The facility is predominantly paved (asphalt), and includes two large warehouses, two modular office buildings, a break/locker room, and two scale houses. A large automobile shredder, including associated separators and conveyors, is located at the southwest corner of the property, and a hydraulic guillotine shear is situated in the north-central portion of the property.

3.2 Operations Description

Metal scrap consisting of a wide variety of recycled items including metal parts, automobiles, appliances, and steel fabrication remnants is delivered to the facility from private and commercial parties by truck, rail, or barge. The scrap is weighed, graded and sorted according to its type, size and thickness, and the transport is directed to the appropriate location at the facility for offloading.

Once received, the scrap material is either processed immediately (e.g., in the shredder or shear, depending on the grade of the material), or is staged for future processing or offsite transfer. Materials processed in the shredder include automobiles, appliances, baled and loose tin and sheet metal, and other relatively thin metals. The shredder reduces the size of the scrap and separates the ferrous metals from non-ferrous metals and nonmetallics (Automobile Shredder Residue [ASR]) using magnetic, gravity, and air-flow separators. The shear is used to re-size steel plate, heavy-walled pipe, cable, and other relatively thick scrap, using a hydraulic guillotine. Items not amenable to processing in either the shredder or the shear may be cut by portable shears or by torch, or transferred offsite as-is.

Processed and unprocessed scrap, as well as processing residues (e.g., ASR, nonmetallic components, etc.), is temporarily staged at the facility in outdoor piles until offsite shipment is arranged. The processed and sorted scrap is then loaded into trucks, rail cars, cargo containers, barges, or ships for shipment off site to domestic and foreign steel mills, where the material is melted and formed into new steel for manufacturing of new products. The ASR is loaded on trucks for shipment offsite for use as an approved alternate daily cover material at appropriate Subtitle D landfills.

In addition to these primary facility operations, several support operations, including weigh-scales, vehicle and equipment maintenance, steel remnant and bulk material

(e.g., pig iron, ferro-manganese, silica-manganese, glass, etc.) storage and sales, and truck washing, are conducted at the facility. Materials related to these support operations that have the potential to adversely impact stormwater, including petroleum products, coolants (glycol), and waste fluids (oils and coolant), are stored either indoors or in a covered outdoor area provided with secondary containment. Steel, pig iron, manganese, and similar bulk materials are typically stored outdoors in paved areas divided by steel retaining walls.

3.3 Site Map

Pursuant to the requirements of NPDES General Permit 1200-Z, a site map of the facility is provided with this SWPC Plan. The site map shows the following features:

- Drainage patterns.
- Drainage and discharge structures.
  - Catch basins.
  - Sumps.
  - Storm sewer piping.
  - Outfalls.
- An outline of the drainage area for each stormwater outfall.
- Paved areas and buildings within each drainage area.
- Areas used for outdoor manufacturing, treatment, storage, and/or disposal of significant materials (no disposal occurs at the site).
- Existing structural control measures for reducing pollutants in stormwater run-off.
  - Oil/water separators.
  - Booms.
  - Grease traps.
- Material loading and access areas.
- Hazardous waste treatment, storage and disposal facilities (NONE).
- Locations of wells, including waste injection wells, seepage pits, dry wells, etc. (only one well, a cooling water supply well, exists on-site).

- Locations of springs, wetlands, and other surface water bodies.
  - Willamette River.
  - Berthing Slip (appendage of Willamette River).

3.4 Stormwater Drainage

Stormwater run-off at the SSP-IT facility is routed to 20 outfalls which discharge into the Willamette River. Each of the outfalls serves a specific drainage area within the facility boundaries, as shown on the site map provided with this SWPC Plan. Table 1 presents a summary of each of the outfalls at the facility, the activities conducted in the associated drainage areas, and the significant materials present.

In addition to the facility drainage areas served by the outfalls identified in Table 1, precipitation incident in three drainage areas is contained and used in the scrap processing operations at the site. These areas are described below:

- The area immediately surrounding the shredder (approximately three acres) is paved and provided with catch basins piped to a nearby 270,000 gallon collection tank. In additional to shredder operations, this area is used for storage of unprocessed scrap items, processed scrap, and ASR. Water collected in the tank treated through polymer addition, settling, and filtration, and is supplied to the shredder, as needed, to facilitate the shredding of metal materials. The water added to the shredder either evaporates, or is discharged with the shredded material, and drains back into the catch basins to be recycled. Because stormwater is not capable of providing a sufficient amount of water for this purpose during most of the year, water is also drawn from an onsite well, as well as from city water supplies, to fulfill the need for shredder process water.

- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system. This area is used primarily for storage of scrap electrical cable. The electrical transformer for the shear, which does not contain PCB oils, is also located in this drainage area.

- The electrical transformer substation serving the shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, if necessary. This water would be pumped into the shredder process water recycling system. However, precipitation collected in the containment area is typically minimal, and evaporates.

Table 1:	Site Drainage Summary		
OUTFALL ID [1]	DRAINAGE AREA ACTIVITIES	SIGNIFICANT MATERIALS	POTENTIAL POLLUTANTS
1	Non-ferrous scrap receiving and storage, remnant steel storage, vehicle parking and traffic, scrap weighing, offices	Parked vehicles, ferrous and non-ferrous materials	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
2	Shredder residue (ASR) stockpiling and loading, heavy equipment parking, truck loading, crushed automobile storage, shredded scrap storage	Stored equipment, crushed automobiles, ferrous and non-ferrous scrap, ASR	Oil and grease, petroleum hydrocarbons, PCBs, heavy metals (dust)
3, 4, 6	Steel storage, bulk material (pig iron, glass) storage	Steel and other ferrous materials	Heavy metals (dust)
5	Steel storage, bulk material (pig iron, glass) storage, vehicle weighing and traffic	Steel and other ferrous materials	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
7, 10, 15	Ship slip and dock activities, scrap, steel and metal product loading and unloading	Heavy equipment, rail cranes, railroad cars and engines, scrap stockpiles	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
8, 9, 11, 12, 17	These outfalls are remnants of an historical shipyard. They are interconnected and accessible by manhole, but they do not serve any catch basins at the site	NA	NA
13	Hydraulic shear, dock activities, scrap, steel and metal product loading and unloading	Shear, heavy equipment, railroad cars and engines, scrap stockpiles	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
14	Ferrous scrap storage, vehicle and rail road traffic, vehicle parking, offices	Parked vehicles, ferrous scrap	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
16	Vehicle parking, equipment storage, petroleum secondary containment area (under roof)	Parked vehicles, stored equipment, potential spillage	Oil and grease, petroleum hydrocarbons, antifreeze, heavy metals (dust)
18	This outfall primarily serves adjacent properties (permitted separately). A small fuel island at the east end of the property (operated by SSP) is also served by this outfall.	Vehicle traffic, potential spillage	Oil and grease, petroleum hydrocarbons, heavy metals (dust)
19	Vehicle traffic, rail car storage	None	Dust, roadway accumulations
20	Rail car storage, scrap storage	Ferrous scrap	Heavy metals (dust), oil and grease
[1] - Outfall locations are shown on the Site Map provided with this SWPC Plan.			

3.5 Significant Materials and Potential Stormwater Pollutants

The NPDES General Permit 1200-Z requires the SWPC Plan to include a description of "significant materials" at the site which may be exposed to stormwater. For the purposes of the permit, "significant materials" are defined as including, but not limited to, "raw materials; fuels; materials such as solvents, detergents and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag and sludge that have the potential to be released with storm water discharges."

Significant materials that might be expected at the SSP-IT facility include the following:

- Ferrous metal scrap.
- Non-ferrous metal scrap.
- Plastic and rubber shredder residue (ASR).
- Bulk materials (pig iron, manganese, glass, etc.).
- Petroleum products (new and used).
- Trash and debris.
- Steel and other metal products.

Both new and used vehicle maintenance fluids (e.g., oil, hydraulic fluid, antifreeze, etc.) are stored in drums and other closed containers, either inside an enclosed building, or within a covered secondary containment area. Potential contact of these materials with stormwater would be limited to leaks from vehicles or equipment, or potential spills.

As a result of the presence of these significant materials, and as summarized above in Table 1, the following potential stormwater pollutants have been identified:

- Petroleum hydrocarbons.
  - Oil and grease.
  - Hydraulic fluid.
  - Fuels (diesel, gasoline, etc.).
- Antifreeze (glycol).
- Heavy metals (dust).
- Dust.

4.0 STORMWATER POLLUTION CONTROLS

This section describes the stormwater pollution controls that will be implemented at the facility to reduce or eliminate the potential for pollutants impacting stormwater run-off from the site. The following categories of pollution controls are addressed, as required by NPDES General Permit 1200-Z:

- Stormwater Best Management Practices.
  - Containment.
  - Oil and Grease.
  - Waste Chemicals and Material Disposal.
  - Erosion and Sediment Control.
  - Debris Control.
  - Stormwater Diversion.
  - Covering Activities.
  - Housekeeping.
  - Other Operational Controls. (in addition to those required by permit)

- Spill Prevention and Response.

- Preventive Maintenance.

- Employee Education.

- Recordkeeping and Internal Reporting Procedures.

- Plan Review and Revision Requirements.

4.1 Stormwater Management

The potential for stormwater pollution occurs when incident rainwater or stormwater run-off comes into contact with pollutants on exposed surfaces. Pollutants may dissolve, become suspended, or float on the surface of the water, or may attach (e.g., via absorption or adsorption) to other particulates suspended in the stormwater. Stormwater quality at the SSP-IT facility has the potential to be impacted as a result of exposed or leaking vehicles or equipment, stockpiled scrap metals and bulk materials, stockpiled shredder residues, and exposed pavement impacted by vehicle traffic and parking.

The vast majority of the SSP-IT property (approximately 90%) is paved (asphalt), and is graded to drain to catch basins. Most of the site's catch basins are designed as grease traps (i.e., with an inverted drain pipe). Stormwater run-off drains via sheet flow to the catch basins, the majority of which are piped to oil/water separators and/or settling cascades, and ultimately to the outfalls serving the site. There are a total of 20 stormwater outfalls serving the site, which discharge to the Willamette River either directly, or via the berthing slip. As indicated in Table 1, above, five of the outfalls discharging to the slip (Outfalls #8, #9, #11, #12, and #17) are remnants of a historical ship yard, and are not currently connected to any catch basins. These outfalls are

interconnected and accessible by manhole, and are equipped with three-stage cascades, but they have been observed to discharge only minimal volumes of stormwater during heavy rain events.

In addition, Outfall #18 primarily serves facilities east of the SSP-IT facility, at least one of which uses the outfall for permitted discharge of non-contact process water. SSP operates a small fuel island in an area near the east property boundary that is also served by this outfall. However, stormwater in the fuel island area drains through grease-trap catch basins and through a three-stage oil/water separator prior to joining other flows directed to the outfall.

As described in detail in Section 3.4, and again in Section 4.1.1 below, precipitation incident in three facility drainage areas is contained and used in the scrap processing operations at the site. These areas include the area immediately surrounding the shredder (approximately three acres), a small area south of the shear (approximately $^1/_2$ acre), and a small secondary containment system for the shredder electrical transformer substation.

SSP has implemented a variety of stormwater pollution controls, BMPs, and structural modifications to minimize the potential for contamination of stormwater run-off from the site. Stormwater pollution controls can generally be categorized as either source controls or structural controls. Source controls are practices that reduce or eliminate the potential for contact of stormwater with pollutant sources, or eliminate non-stormwater discharges (e.g., spills or leaks). Structural controls are in-pipe or end-of-pipe treatment systems and discharge volume reduction devices. Some controls, such as containment structures designed to isolate potential pollutant sources, may be classified in either category.

In general, source controls are given the highest priority for implementation under this SWPC Plan. SSP believes that control of potential pollution sources is a more proactive approach to stormwater pollution prevention, minimizing the need for often expensive end-of-pipe treatment technologies. However, due to the nature of scrap recycling operations and existing conditions, structural controls have also played an important role in stormwater pollution prevention at the facility, and will continue to be evaluated for implementation.

Table 2 provides a summary of the existing and proposed stormwater pollution control measures relevant to the SSP-IT facility. As indicated in the table, existing control measures are continuously undergoing evaluation for applicability and effectiveness, and some have been designated for improvement. The following subsections describe the control measures in greater detail.

Table 2: **Stormwater Pollution Controls and BMPs**

4.1.1 CONTAINMENT

As noted above, containment measures, which involve isolating potential pollution sources from contact with stormwater, may be classified as both a source control and a structural control. Containment measures play an important part in stormwater pollution control at the SSP-IT facility, and is generally considered to be the preferred mechanism for reducing or eliminating adversely impacted stormwater discharges. The following containment measures have been implemented at the facility to minimize the exposure of significant materials to stormwater:

- To the extent possible, vehicle and equipment maintenance activities are conducted inside a fully enclosed, concrete floored building. The building floor slopes toward low spots in the floor that serve as blind liquid collection points. Drains inside the building that connect to the site's stormwater sewer system are not located in areas used for maintenance activities. Vehicle maintenance outside of the building is conducted only in the event of an emergency, such as the failure of hydraulic systems, and is limited to activities necessary to ensure capture and containment of fluids and other significant materials. Equipment maintenance outside of the building is limited to items that are not mobile or portable.

- New and used motor oil, hydraulic fluid, antifreeze, etc. are stored in drums and other sealed containers under roof in a concrete secondary containment unit. Containers are elevated above the floor of the containment structure to facilitate detection and collection of spilled and accumulated liquids. Small quantities of these items may also be stored inside of the vehicle maintenance building, elevated on pallets or placed in polyethylene or steel drip pans.

- The paved area immediately surrounding the automobile shredder (approximately three acres) is sloped toward catch basins, which are piped to a nearby storage tank. Water collected in the tank is treated and supplied to the shredder, as needed, as a coolant/lubricant to facilitate the shredding of metal materials. The water added to the shredder either evaporates in the process, or is discharged with the shredded material, draining back into the catch basins to be again recycled. This area is used for stockpiling of shredded ferrous and non-ferrous metals and ASR prior to offsite shipment.

- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system. A transformer pad, which supports the electrical transformers serving the shear, is situated within the boundaries of this small drainage area. In addition, storage of insulated cables and other wire products is limited to this area.

- The electrical transformer substation serving the shredder (located in the southwest corner of the site) is equipped with secondary containment including a blind sump. A manually operated pump has been installed in the sump to evacuate the containment area, if necessary. However, precipitation collected in the containment area is typically minimal, and is generally allowed to evaporate.

- Drip pans are placed beneath vehicles and equipment that show evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).

4.1.2 OIL AND GREASE

Oil and grease separation is a structural control that is in extensive use at the SSP-IT facility. Oil/water separators are passive, flow-through, multi-step chambers designed to separate floating product and settleable solids from the discharge stream. The following oil and grease separation control measures have been implemented at the site.

- There are fourteen oil/water separators in existence at the facility. The oil/water separators vary in size from 1 to 10 stages, and are installed in discharge lines serving the following areas:

  - A Vortechs Stormwater Treatment System, designed to remove floating product (oil and grease), as well as settleable solids, is installed at Outfall #2. This outfall serves the drainage area immediately north of the shredder, in which bulk materials, crushed automobiles, shredder residues, and other significant materials are stored. Shredder process water, which is recycled through a treatment system for re-use, is not discharged through this unit.

  - One ten-stage oil/water separator is installed in the drain line that serves the shear oil cooler. Some of the stormwater run-off from drainage area #5 passes through this unit and into the oil cooler, where it is used as a non-contact cooling fluid. The water is continuously recycled, and excess water is routed through the ten-stage oil/water separator before being discharged from Outfall #5.

  - One three-stage oil/water separator is installed in the drain line leading from the yard scale to the line leading to Outfall #5. This separator is designed to remove floating product and entrained solids.

- One single-stage oil/water separator is installed in the small paved drainage area near the shear electrical transformer pad. The unit is designed to remove oil and grease from the stormwater run-off prior to drainage into the shredder process water recycling system. Stormwater from this drainage area does not exit the site.

- One three-stage oil/water separator is installed at Outfall #7. The drainage area served by this unit, located on the west end of the dock, is used primarily for loading and unloading bulk materials and steel products from berthed ships.

- One three-stage oil/water separator is installed at Outfall #14. The drainage area served by this unit, located on the dock immediately east of the shear, is used for staging of scrap metals which must be torch cut or otherwise dismantled either prior to, or in lieu of, being resized in the shear.

- One three-stage oil/water separator is installed at Outfall #16. The drainage area served by this unit, located on the dock east of the shear, is used for staging of scrap metals which must be torch cut or otherwise dismantled either prior to, or in lieu of, being resized in the shear.

- One three-stage oil/water separator is installed at each of Outfalls #8, #9, #11, #12, and #17. These outfalls are remnants of a historical ship yard, and are not currently connected to any catch basins. These outfalls are interconnected and accessible by manhole; they have been observed to discharge only minimal volumes of stormwater.

- Approximately 80% of the storm drain catch basins at the SSP-IT property are designed with an inverted outflow pipe to trap oil and grease in the basin. The outflow pipe discharges water collected in the basin from below the water surface, essentially trapping oil, grease and other floating products in the basin. These catch basins are located throughout the site, but are concentrated in areas of storage and operations (e.g., most of the non-grease trap basins are located along access roads and in parking areas).

- Passive oil skimmers (absorbent pillows) are placed in all catch basins throughout the site. These pillows are designed to absorb petroleum products floating on the surface of the collected water, thereby reducing the amount of oil which may flow out of the basin to the oil/water separators and the outfalls.

- Straw bales have been placed around some storm drain catch basins to control the influx of sediments, as necessary.

- Drip pans are placed beneath vehicles and equipment that show evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).

- Small spills or releases of oil or other petroleum products are cleaned up using dry absorbents which are swept up and properly disposed upon completion of clean-up. No detergents, solvents, or other liquids are used.

- Oil/water separators are inspected on a monthly basis for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned by a licensed private wastewater contractor, as necessary.

- Catch basin skimmers are inspected at least monthly, and are replaced as necessary. Oil-soaked absorbents are properly disposed.

4.1.3 WASTE CHEMICALS AND MATERIAL DISPOSAL

Management controls related to waste chemicals and material disposal include both source control and structural control options. The following management practices related to waste chemical and material disposal have been implemented at the site:

- SSP's stringent scrap metal acceptance policy (included as Appendix B) requires that waste materials be removed from discarded items prior to acceptance.
  - Appliances must have all electrical components removed.
  - Vehicles must be drained of all fluids, including fuel, radiator and air-conditioning coolants, and lubricants.
  - Lead acid batteries must be removed from all vehicles or equipment.
  - Compressors from appliances must be removed, drained, and cut in half.
  - Aerosol cans must be empty, and either punctured or crushed.
  - Drums, barrels, and other containers must be thoroughly cleaned and cut open for inspection.

- Waste coolants and lubricants generated by SSP are accumulated in above ground storage tanks or drums in a covered, concrete secondary containment structure prior to periodic offsite shipment for recycling.

- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.

- Solvents and degreasers used in a self-contained parts cleaner are periodically exchanged by an outside contractor, and waste solvents are transported offsite for recycling.

- Although uncommon, waste items delivered improperly to SSP (e.g., lead-acid batteries) are temporarily stored under cover in the maintenance building pending offsite shipment for proper disposal.

4.1.4 EROSION AND SEDIMENT CONTROL

The vast majority of the SSP-IT property (approximately 90%) is paved. Additional portions of the site are scheduled to be paved in the future. Currently unpaved areas primarily consist of narrow strips of property along the banks of the Willamette River and around the head of the ship berthing slip. Very narrow strips of unpaved area also exist along the network of railroad tracks at the site. The following measures have been implemented at the site to control sediment and erosion:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week.

- Vegetation (primarily indigenous grasses and blackberry) has been allowed to take root in unpaved areas along the water banks to reduce erosion. In addition, rip-rap has been historically emplaced on the slopes of the river bank which may be prone to erosion due to wave action, and minor bank stabilization work was performed under permit following severe flooding in 1996 and 1997.

- Straw bales, drain filters, or similar mechanisms are used to minimize the influx of sediment into stormwater catch basins and into the river, where appropriate.

- Facility-wide inspections are conducted at least once per month to identify areas of erosion, damaged pavement, and areas requiring sweeping.

- In areas where bulk material storage is conducted, drain covers may be emplaced during storage of materials which might contribute to suspended solids in stormwater run-off (e.g., fine particulates or dusty materials), as necessary.

4.1.5 DEBRIS CONTROL

Considering the nature of facility operations, debris build-up is of significant concern. Although scrap recycling operations requires the accumulation of both processed and unprocessed scrap metals in stockpiles, SSP personnel strive to ensure that only

designated areas are used for these stockpiles, and that all roadways, railways, parking areas, work areas, and buildings remain free of accumulated debris. The following measures have been implemented at the facility to control debris:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week.

- Accessible areas are swept using a magnetic collector on an average of once per month.

- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and offloading.

- Two trailer sweep-off areas are designated along the access road to the facility to allow suppliers to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.

- Facility-wide inspections are conducted at least once per month to identify areas of debris build-up that need cleanup.

4.1.6 STORMWATER DIVERSION

Stormwater diversion controls have been implemented at the site primarily as a means of ensuring that stormwater drainage in areas that may be prone to adverse impact is either recycled, or is directed through treatment systems (e.g., oil/water separators) prior to discharge (refer to Section 4.1.2, above). The following stormwater diversion measures have been implemented at the facility:

- The paved area immediately surrounding the automobile shredder (approximately three acres) is sloped toward catch basins, which are piped to a nearby collection tank. Water collected in the tank is treated and supplied to the shredder, as needed, to facilitate the shredding of scrap metals. The water added to the shredder either evaporates in the process, or is discharged with the shredded material, draining back into the catch basins to be recycled.

- A small paved area south of the shear (approximately $^1/_2$ acre) is served by a catch basin which is also piped to the shredder process water recycling system.

4.1.7 COVERING ACTIVITIES

Activities and storage areas that are most prone to potentially adversely affecting stormwater quality are maintained under cover, either inside of the maintenance building, or in a roofed concrete secondary containment structure. These areas are further discussed in Section 4.1.1, above.

In addition, SSP is currently investigating the option of reconfiguring the conveyors delivering ASR from the shredder to allow deposition of the residues inside of a building. This would result in a substantial decrease in the amount of significant materials which would be exposed to incident precipitation or stormwater run-off at the site.

Covered storage and operations areas are inspected monthly to ensure that any significant materials stored or used in the areas are being properly contained and managed.

4.1.8 HOUSEKEEPING

Maintaining a clean and orderly job site is instrumental for controlling potential stormwater pollutants, as well as for ensuring a safe working environment. The following management practices related to good housekeeping are followed at the SSP-IT facility:

- Accessible areas are swept using a vacuum/broom sweeper on an average of once per week, and are swept using a magnetic collector on an average of once per month. Water is not used to flush the pavement. Minimal amounts of water are used only for dust control during dry periods.

- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and offloading.

- Two trailer sweep-off areas are designated along the access road to the facility to allow suppliers to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.

- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.

- Drip pans are placed beneath vehicles and equipment that exhibit evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).

- Stencils or other signage noting that dumping of foreign materials is prohibited are provided at catch basins where problems may occur.

- Facility-wide inspections are conducted at least once per month to identify areas needing cleanup and general policing.

4.1.9 OTHER OPERATIONAL CONTROLS

Significant operational controls are in place at the facility that exceed the specific requirements of the NPDES General Permit. These controls include the following:

- Periodic community outreach events are conducted in order to elevate the awareness of scrap suppliers toward SSP's stringent scrap acceptance policies. These events include signage posted at SSP-IT, policy and guideline mailings, and visits to supplier facilities by SSP environmental and/or management personnel.

- An inbound material inspection program has been developed to minimize the potential for receipt of unacceptable materials. The program includes the following:
  - Passage of every load of scrap entering the facility through a radiation detector.
  - Visual screening of every load of scrap received at the facility by scale-house personnel.
  - Visual screening of all scrap materials offloaded from transport vehicles by equipment operators and ground personnel in the yard.
  - Periodic thorough inspections of offloaded scrap from specific suppliers (on a rotating basis) by environmental or management personnel.
  - In the event that unacceptable or suspect materials are detected as a result of this program, the materials may be segregated from the scrap for proper disposal, may be returned to the supplier, or the entire load may be rejected. In any case, the supplier will be contacted and informed of the rejection, and the scrap acceptance policy will be reiterated.

4.2 Spill Prevention and Response

SSP-IT maintains a written Spill Prevention, Control, and Countermeasures (SPCC) Plan, which details the specific procedures to be followed in the event of a spill or release of oil, fuel, or other petroleum product a the facility. A copy of the SPCC Plan is provided as Appendix C.

Potential causes of spills or leaks of significant materials at the facility could include container failures, equipment or vehicle leaks, and spills of shredded materials, ASR, and/or chemicals during handling or transport operations. Frequent inspections of storage, maintenance and processing areas, and inspections of vehicles and equipment are intended to identify potential problems areas, and to allow the timely detection of any spillage prior to adversely impacting the storm sewer system, or reaching surface waters.

Spill response equipment, including containment and absorbent booms, absorbent socks and pads, and related safety equipment, are maintained on-hand in spill kits placed in strategic locations throughout the site.

Spill prevention and response provisions include the following:

- Operations personnel are equipped with radios and/or cellular phones to provide immediate communication in the event of an accidental release.

- Storm drain covers are available to block catch basins in the event of a spill which has the potential to reach the drain.

- Spill kits containing absorbent pads and booms, and other cleanup and safety supplies are placed in strategic locations throughout the site.

- An adequate supply of absorbent and containment booms and similar items are available to contain and clean-up any spilled materials. Spilled materials are cleaned up using dry methods only, whenever possible.

- Containers of liquids, including oils and other petroleum products, are stored within secondary containment, or are placed on spill containment pallets.

- Drip pans are placed beneath vehicles and equipment that exhibit evidence of potential oil or fluid leakage, and that are parked or stored for periods longer than one shift (eight hours).

- Containers are periodically inspected to ensure that they are closed, properly labeled, and in good condition.

4.3 Preventive Maintenance

Preventive maintenance involves the regular inspection, cleaning and mechanical maintenance of vehicles, equipment, and stormwater management structures, as well

as other activities designed to reduce the likelihood of spills and leaks. The following preventive maintenance provisions have been implemented at the SSP-IT facility:

- A vehicle and equipment inspection and maintenance program has been developed which includes the following:
  - Regularly scheduled vehicle and equipment inspections focussed on fluid leaks.
  - Service and inspection checklists specific to each type of vehicle and major item of equipment.
  - Maintenance logs detailing services performed on each vehicle and major item of equipment.
  - Training requirements for personnel involved in vehicle and equipment operations, inspection, and maintenance.

- Major items of equipment that are stored or used outdoors are cleaned on a regular basis to remove accumulated oil and grease from exterior surfaces (except as necessary for proper operation).

- Vehicle and equipment maintenance is conducted within the enclosed maintenance building, to the extent possible.

During monthly site inspections, the inspector (a designated member of the Stormwater Pollution Prevention Team [refer to Section 2.0]) will determine whether potential pollution sources are being adequately controlled, and whether pollution controls specified in the SWPC Plan have been properly and effectively implemented. Inspections will be documented using a comprehensive Site Inspection Checklist (included as Appendix D), which will include the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented. The facility drainage areas described in Table 1 will be included in the inspections, and the following items will be inspected, at a minimum:

- Containment structures, booms and berms, on a monthly basis, to ensure that they are intact and functional.

- Discharges from outfalls, on at least a monthly basis when occurring, to inspect for color, foam and sheen.

- Facility-wide inspections, at least once per month, to identify areas of erosion, damaged pavement, and areas requiring sweeping.

- Oil/water separators, on a monthly basis, for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned by a licensed private wastewater contractor, as necessary.

- Catch basin skimmers, at least monthly. Spent absorbents are replaced as necessary, and are properly disposed.

4.4 Employee Education

SSP has developed a comprehensive employee training program which includes practices and procedures related to stormwater management, pollution prevention, and spill control and countermeasures. Operations personnel begin their training by viewing a stormwater pollution prevention video prepared and distributed through the Institute of Scrap Recycling Industries (ISRI). Additional training is provided by the facility's environmental and safety staff, and includes the following:

- Information on the acceptability and unacceptability of certain types of scrap and other materials.
- Proper procedures for containing or otherwise isolating unacceptable materials and spills.
- Locations of spill response kits and other emergency equipment.
- Proper notification procedures.

Training is documented using Training Record forms (included as Appendix E). Training Records are maintained for each employee for a minimum of five years, and are retained at the SSP Health and Safety office in the employee personnel files.

In addition to employee training, SSP-IT strives to educate its scrap suppliers regarding scrap acceptability, both to prevent improper receipt of unacceptable materials, and to protect site stormwater from potential pollution sources. SSP-IT has a written scrap acceptance policy (included as Appendix B) which is distributed to suppliers in periodic mailings and in frequent hand-outs when entering or exiting the facility. The policy identifies specific items that cannot be accepted, as well as particular preparation requirements for other items. The policy is periodically reviewed and updated, and updates are communicated promptly to SSP's suppliers.

4.5 Recordkeeping and Internal Reporting Procedures

Records of site inspections are maintained using a comprehensive Site Inspection Checklist (included as Appendix D). This checklist provides a means for documenting the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented.

Site Inspection Checklists, stormwater monitoring results, records of spills and associated corrective action, and preventive maintenance records will be retained on file at the SSP Environmental office for a minimum of five years.

Stormwater monitoring results will be tabulated and submitted in a report to DEQ's Northwest Region by July 15th of each year. Other relevant records will be made available to authorized representatives of the DEQ upon request.

4.6 Plan Review and Revision Requirements

Based on the results of monthly site inspections detailed previously, the SSP-IT facility will periodically assess the overall effectiveness of this SWPC Plan, and will implement modifications or improvements to the plan, as appropriate. The periodic plan assessment will include the following:

- The site map will be modified or updated to reflect current facility conditions.
- Identified potential stormwater pollution sources will be visually inspected to determine if they are being adequately and effectively controlled.
- Pollution control structures will be evaluated to determine if they have been properly installed, and to assess their effectiveness.
- Pollution control measures will be evaluated to determine if they have been properly implemented, and to assess their effectiveness.
- Spill response equipment and supplies will be inspected to ensure proper operation and adequate supply.

In addition, the SWPC Plan will be reviewed within 60 days of receipt of any sampling results demonstrating that effluent benchmarks specified in the NPDES General Permit have not been met. The purpose of this review will be to determine if the SWPC Plan has been properly and effectively implemented, and to identify any additional technically feasible and economical site controls that may be implemented to further improve the quality of stormwater discharges. Based on this review, the SWPC Plan may be revised, as necessary, and the revised plan will be submitted to the DEQ within 14 days of completion.

5.0 MONITORING PROGRAM

In compliance with the NPDES General Permit, stormwater samples will be collected from the active discharge outfalls serving the facility twice each year. One of the sampling events will be conducted during the first month of the Fall during which stormwater discharge occurs. The second event will be conducted no less that 60 days after the first event.

Monitoring for the purposes of this SWPC Plan will not include Outfalls #8, #9, #11, #12, and #17, since these outfalls are not currently connected to any catch basins and do not typically discharge stormwater. Also, Outfall #18 will not be included for monitoring under this plan, since it is sampled monthly by a neighboring facility as part of a separate NPDES Individual Permit.

SSP may elect to reduce the number of actual monitoring points at the facility based on site operations and specific activities conducted within the drainage areas, in accordance with NPDES General Permit Condition B.1(c). Discharges from multiple outfalls serving drainage areas representing similar activities, and where discharges are expected to be of similar composition, may be represented by a single monitoring point. In addition, outfalls serving areas with no exposure of stormwater to industrial activities will not require monitoring.

Visual monitoring at all outfalls and at areas of potential pollutant contact is required during at least one storm event per month during the rainy season (approximately October through April) that results in at least one hour of continuous discharge. In addition, visual monitoring at each outfall is required at least twice during the dry season (approximately May through September). These visual monitoring requirements will be met through monthly site inspections conducted as described in Section 4.0.

Collected stormwater samples must be representative of the discharge from the facility, and will be analyzed in accordance with the approved methods specified in 40 CFR 136.

Stormwater samples collected during the sampling events will be delivered to a laboratory for analysis for the parameters required by the NPDES General Permit, as summarized in Table 3.

Table 3: Stormwater Sample Analytical Requirements		
PARAMETER	ANALYTICAL METHOD	EFFLUENT BENCHMARK
Total Copper	EPA 6010B	0.1 mg/l
Total lead	EPA 7421	0.4 mg/l
Total Zinc	EPA 6010B	0.6 mg/l
pH	EPA 150.1	5.5 to 9.0 s.u.
Total Suspended Solids (TSS)	EPA 160.2	130 mg/l
Oil & Grease	EPA 413.1	10 mg/l
Floating Solids (associated with industrial activities)	Visual Observation	No Visible Discharge
Oil & Grease Sheen	Visual Observation	No Visible Sheen

The results of stormwater sample analyses will be tabulated and submitted to the DEQ's Northwest Region by July 15th for the preceding reporting period (July 1st through June 30th).

In the event that stormwater monitoring results indicate that a pollutant parameter for which the receiving water is water quality limited is being discharged in significant concentrations, a waste load allocation may be added to the permit conditions by the DEQ.

In the event that stormwater monitoring results indicate that a pollutant parameter is being discharged at a concentration that may be a threat to the water quality of the receiving stream, additional effluent limits may be added to the permit conditions by the DEQ.

Biannual sample analytical results and periodic visual inspection observations will be evaluated by SSP-IT's Stormwater Pollution Prevention Team during periodic SWPC Plan effectiveness assessments to determine if modified or additional stormwater management practices and/or structural controls are warranted. The SWPC Plan will be revised as appropriate, and employees will be properly trained as necessary.

6.0 IMPLEMENTATION SCHEDULE

In accordance with the requirements of NPDES General Permit 1200-Z, revision of the facility's SWPC Plan was required within 90 days of receipt of the General Permit. In addition, implementation of the plan, with the exception of site controls requiring capital improvements, was required within 90 days of SWPC Plan revision. Future revision of this plan may be required as a result of modification of the General Permit, and will be completed in accordance with the schedules provided in the modified permit, as applicable.

Site controls determined to be warranted based on SWPC Plan review (as described in Section 4.6) will be implemented in a timely manner, and will be incorporated into the SWPC Plan as an update. Updated SWPC Plans will be submitted to the DEQ within 14 days of completion.

7.0 ADDITIONAL PERMIT REQUIREMENTS

7.1 Waste Disposal Wells

Oregon Administrative Rule (OAR) 340-44-50 provides specific requirements for the use of waste disposal wells for stormwater drainage. The SSP-IT facility does not use waste disposal wells for stormwater drainage.

7.2 Surface Water Temperature Management Plan

Individual stormwater dischargers are not expected to cause a measurable increase in stream temperature. Compliance with the NPDES General Permit meets the requirement of OAR 340-41-26(3)(a)(D) to develop and implement a surface water temperature management plan. However, in the event that the Total Maximum Daily Load (TMDL) for temperature is being exceeded by stormwater dischargers in a specific river basin, additional management practices to reduce the temperature of discharges may be required. Such management practices may include increasing vegetation to provide shading, construction of underground conveyance systems or detention structures, or installation of filtration devices to reduce above-ground detention times.

In the event that additional temperature management controls are required by the DEQ, SSP-IT will revise the SWPC Plan to include management practices focussed on reducing discharge temperatures, as necessary.

7.3 Specific River Basin Requirements

The SSP-IT facility lies within the Willamette River Basin. Water quality standards for the Willamette River Basin are provided in OAR 340-041-0442 through OAR 340-041-0470.

In general, the effluent benchmarks specified in NPDES General Permit 1200-Z are expected to meet the water quality requirements for the Willamette River Basin. However, in some cases, monitoring requirements of the General Permit are not directly applicable for demonstrating compliance with Willamette Basin water quality standards. For example, based on the requirements of OAR 340-041-0445(2)(c), no more than a

10% cumulative increase in natural stream turbidities is allowed for a discharger, as measured relative to a control point immediately upstream of the turbidity causing activity. However, the NPDES General Permit does not require monitoring for turbidity, but for total suspended solids (TSS). Although the benchmark for TSS is expected to be protective of the turbidity standard, no direct correlation between the two measurements has been determined.

The DEQ is currently addressing this situation by modifying the NPDES General Permits for specific watersheds. In the event that additional monitoring or management controls are required by the modified permits (provided they apply to the SSP-IT facility), SSP-IT will revise the SWPC Plan to include those monitoring requirements and management practices, as necessary.

8.0 PLAN APPROVAL AND CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature Date

Terry Glucoft
Vice President/General Manager
Schnitzer Steel Products Co.

Being familiar with the Schnitzer Steel Products Co. facility at the International Terminals, and being knowledgeable in stormwater management, I hereby attest that this Stormwater Pollution Control Plan has been prepared in accordance with good engineering practices.

_____ _____

Signature Date

Mathew J. Cusma, P.E.
Environmental Administrator
Schnitzer Steel Products Co.

FIGURES

APPENDIX A:
NPDES GENERAL STORMWATER DISCHARGE PERMIT

APPENDIX B:
SCRAP ACCEPTANCE POLICY

APPENDIX C:
SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN

APPENDIX D:
SITE INSPECTION CHECKLIST

APPENDIX E:
TRAINING RECORD FORM